THE Genesee Farmer.

A PRACTICAL AND SCIENTIFIC FARMERS OWN PAPER.

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POWER OF SOILS TO RETAIN AMMONIA.

Dr. Voelcker, chemist to the Royal Agricultural Society of England, has made a series of experiments to determine the power of different soils to absorb ammonia from its solution in water; and also to what extent water has the power of washing out ammonia from the soil.

Since the publication of Prof. Way's celebrated experiments on the "Absorptive Power of Soils"—which showed that clay soils had a remarkable power of absorbing and retaining ammonia,—it seems to have been taken for granted that sandy soils have not the power of retaining ammonia, whilst clay soils are imbuded with this property in so eminent a degree that no amount of rain is capable of removing any of the ammonia absorbed by them. The experiments of Dr. Voelcker, show that both these impressions are erroneous.

In determining the amount of ammonia which a soil could absorb from water, Dr. V. placed 3,000 grains of soil in a stoppered bottle, with 14,000 grains of water containing 23.24 grains of ammonia in the gallon, or about one grain of ammonia in 3,000 grains of water. In the course of the day the bottle was repeatedly shaken, and the liquid then left to subside. After standing for three days the soil had all settled to the bottom, and the greater portion of the liquid could be drawn off in a perfectly clear condition.

Five different varieties of soils were used. We have not space to give all the details of the experiments, but the following results were obtained. On the *average*, one million (1,000,000) grains of the five kinds of soil absorbed 777 grains of ammonia, as follows:

1. Calcareous soil	882 grains
2. Fertile loamy soil and clay subsoil	804 "
3. Heavy clay soil	754 "
4. Sterile sandy soil	888 "
5. Pasture land	576 "

It is worthy of notice that the sterile sandy soil absorbed as much ammonia as the calcareous clay, and even rather more than the heavy clay soil, thus proving that the property of absorbing ammonia is not confined to clay soils, but that it is shared by light sandy soils. It has been too generally assumed that sandy soils do not possess the power of retaining any ammonia; but the preceding experiments show unmistakably that this opinion is not founded on fact.

Again it may be noticed that the soil taken from the pasture, which, as shown by analysis which we have not space to give, abounded in vegetable matter, absorbed the least ammonia. "The question naturally arises," says Dr. V., "Is the cause of this difference due to the presence of organic matter, or to any other peculiarity in this soil? I am unable to answer this question at present, but think it possible that the presence of a large quantity of organic acids in a soil may be unfavorable to the retention of ammonia. Future and extended experiments are needed to confirm or refute this supposition. In the mean time I may direct attention to the well-known fact, that on certain old pasture land ammoniacal manures produce little effect, whereas these manures generally increase the produce of grass in a remarkable manner. In all specimens of soil taken from old pastures, upon which ammoniacal manures have little or no effect, I find a large excess of organic matter. It is just possible that this excess of organic matter prevents the retention of ammonia by the soil; but I have no opinion at present as to the precise mode in which this is effected."

Subsequent experiments showed that these same soils had the capacity to absorb much larger quantities of ammonia from *stronger* solutions.

The sterile sandy soil, which absorbed so much ammonia, when presented in the free state, was found not to possess the power of retaining the ammonia when it was presented as a sulphate or muriate of ammonia. It has the power to retain ammonia, but not to decompose a salt of ammonia. The other soils had this power. They decomposed

the salt of ammonia, retaining the ammonia, still the acid passed off in solution united with lime or other mineral matter.

These experiments show that soils of very diverse character all possess the power of absorbing ammonia. The next point to determine was whether this ammonia could be again washed out of the soil. When the fact was ascertained that soil had the power of taking ammonia from water, Prof. LIEBIG advanced the idea that plants did not take up their food in solution—that the roots possessed the power of taking up matter insoluble in water. But the experiments of Dr. VOELCKER show that it is not necessary to assume this, for he found that while a soil absorbed ammonia from water, yet it would afterwards part with this ammonia when a much larger quantity of water was used. It thus appears that soil has the wonderful property of absorbing ammonia from even comparatively weak solutions, and retaining it till a larger quantity of water dissolves it out for the use of plants.

BUTTER AND CHEESE MAKING.

IN a little work published in England last year, called the "Handbook of Dairy Husbandry," an experienced cheese-maker, Mr. HARRISON, of Gloucestershire, calls particular attention to the fact that the amount of butter and cheese which is obtained from the milk is *very much less* than analysis shows the milk to contain.

Thus, in 1857 he milked 55 cows; they yielded 31,700 gallons, or 321,000 lbs. of milk, besides rearing 43 calves. From this quantity of milk, 25,424 lbs. of cheese and 3,466 lbs. of butter were made. Now the milk contained by analysis 12,480 lbs. of casein (pure cheese) and 11,556 lbs. of butter, whereas the cheese and butter contained by analysis only 9,765 lbs. of casein and 8,366 lbs. of butter, leaving 2,715 lbs. of casein and 3,190 lbs. of butter that must have been left in the whey and in the buttermilk.

Dr. VOELCKER, chemist of the Royal Agricultural Society, is now engaged in making researches on this subject for the Society. The details of his investigations have not yet been published, but it appears that he has obtained results confirming the accuracy of Mr. HARRISON's practical experiments. He finds that nearly 25 per cent. of the casein and butter which go to form cheese pass off in the whey.

This is a very great loss, and it is hoped that some method will be discovered whereby we shall be able to extract a much greater proportion of the casein and butter from the milk. Dr. VOELCKER's experiments on this point will be looked for with considerable interest, as it is understood that he believes most of this loss may be avoided.

ROOT CROPS IN CANADA.

WE are indebted to T. SIDDONS, Secretary of the Whitchurch (C. W.) Agricultural Society, for the judges report of the crops of turnips (ruta bagas), carrots and mangel wurzel entered for competition for the prizes offered by the Society for the best crops of these roots.

Of turnips, there were fourteen entries. The largest crop was raised by JOHN RICHARDSON, on 3½ acres of clay land, plowed once in the fall and twice in the spring, with 10 loads of manure per acre. Seed sown 15th of June, 1½ lbs. per acre. Rows 28 inches apart, and the plants left 15 inches apart in the rows. Horse-hoed once and hand-hoed twice. The yield was 1130 bushels per acre.

Of the 14 crops, the lowest yield was 746 bushels per acre. This was on "new land." The *average* yield of the 14 crops was 907 bushels per acre. This is a high average, and proves that there is nothing in our climate to prevent us from raising good crops of turnips.

Of carrots, there were six entries. The prize crop was raised on an acre of clay land, plowed once in the fall and again in the spring, turning under 12 loads of hog-pen manure. Seed sown (1½ lbs. per acre) May 3d, in rows 22 inches apart, and 3 inches in the rows. The crop was hand-hoed once, and the horse-hoe passed twice between the rows. The yield was 1184 bushels per acre.

The best crop of mangels yielded 1493 bushels per acre. Land prepared as for carrots, and the seed (3 lbs. per acre) sown May 13th, in rows 22 inches apart, and 8 inches apart in the rows. We think 12 to 15 inches would have been better.

COLTS WHISKING THEIR TAILS.—This may be done from spite; if so, take as little notice of it as possible. If done when spoken to, take some one along and continue in conversation. A correspondent of the *Country Gentleman* says he has adopted this method with success.

GOOD CROP OF POTATOES.—The Ohio State Board of Agriculture, at their late annual meeting, awarded the first prize of $20 for the best half acre of potatoes, to WM. NORRIS, of Dayton. The yield was 180 bushels, or 360 bushels per acre. The variety was the "White Sprout."

SPIRIT OF THE AGRICULTURAL PRESS.

MAPLE SUGAR.—"The chief requisite for success in the manufacture of maple sugar," says the *Country Gentleman*, "is that all the vessels be perfectly clean and sweet, and that strict cleanliness be observed throughout the whole process. Much mutilation of the tree should be carefully avoided. Scald all the vessels and wash them thoroughly; never allow the sap to stand longer than 24 hours; if quite fresh, the sugar will be better. Shallow sheet-iron pans are better than deep cast-iron boilers; they can be kept cleaner; they evaporate more rapidly; and less fuel is consumed. The fire space beneath them should be quite flat, so that a thin sheet of flame may extend over the bottom of the pan; and the flue should be high enough to cause a good draught, and carry the smoke far away. Plank sides to the pan will do, if the sheet-iron is bent up around the outside and nailed on so as to make it water-tight. The brick 'arch' or fire-place should be a little smaller than the pan, to prevent burning the sides. We should prefer the pan made wholly of sheet-iron. In either case, the sugar will be burned or injured, if the fire reaches the side of the pan. The sap must be boiled to about one-twentieth or one-thirtieth, to make good syrup. The syrup is then strained through flannel, and placed aside to cool and settle 12 to 24 hours. Then it is placed in the pan again, and a beaten egg and a gill of milk are added to each gallon and stirred, to clarify it, keeping it carefully from boiling till all the scum has risen and is skimmed off. Then boil carefully till it will harden, which may be known by dropping a little into cold water. The liquid sugar may now be poured into proper vessels, and afterwards the cakes placed in a box to drain; or it may be poured at once into hopper-shaped wooden boxes, with a cork in the bottom, which is pulled out when it hardens, and the molasses allowed to drain out. To make the sugar perfectly white, lay a few thicknesses of flannel on the sugar while draining, wet and washed daily with cold water. It will absorb and wash out all the impure coloring matter."

A DAMP PLACE BEST FOR SITTING HENS.—A correspondent of the *London Poultry Chronicle* says hens should sit in a damp, rather than dry places, for the following reason:—"The germ of the egg floats uppermost within and against the shell, in order that it may meet the genial warmth of the breast of the fowl. We must, therefore, in hatching, apply most warmth to that part only; the egg being supplied with only a limited quantity of moisture, is thus arranged to prevent evaporation from a large surface, as the egg is only very warm at the part in contact with the fowl, until the blood-searching nourishment for the embryo, have surrounded the inner surface of the shell, when the whole egg becomes gradually warm, and eventually of an equal temperature."

WHEN TO CUT TIMBER.—A correspondent of the *N. E. Farmer* mentions this fact:—"On the 12th of July, 1798, my father's barn was struck by lightning and consumed. The neighbors assisted, went to the woods and cut all the timber except the braces, hewed it, and had another frame erected, 50 by 30 feet, in just two weeks. The timber is as bright now as new timber, with but very little powder-post. The large timber is pine, and the small mostly hemlock."

KEEP THE STOCK OFF THE CLOVER FIELDS.—The *Valley Farmer* says:—"Clover land, if possible, suffers more from allowing cattle and hogs to run upon it during winter than timothy. In an open winter we have seen nine-tenths of the clover plants entirely killed and drawn up by the roots by the action of the frost, owing to close pasturage and the tramping of the surface of the soil by the stock. Stock should always be turned off from clover so early in the fall as to allow the plants to make a growth of leaves sufficient to protect them from the action of the snow and frosts of winter. When eaten off to the ground, and the surface becomes trod hard and compact, the roots will be drawn up frequently three inches above the surface before spring.

"If clover lands have already received close fall feeding, by all means stock should be kept off during February and March, so that the surface may become somewhat lightened by the rain and frosts, that the tender growth of spring may proceed without injury. One hundred lbs. of feed gleaned from a clover or timothy field in the winter or early spring, will cut short the crop of the coming season five hundred lbs. or more; so that it will prove the most miserable economy to allow a hoof to press upon lands that are intended either for hay or summer pasturage."

MIXED FEED FOR FOWLS.—A correspondent of the *Homestead* says: "A change of diet is very essential to the well-being of the biddies. Variety is the spice of life, with fowls as much as with men; and they should have an assortment of food given them, applicable to their wants. Corn-and-cob meal is, on the whole, preferable to a constant use of more solid grain or meat, in either making hens lay or for the accumulation of flesh. Potatoes and bran are an excellent dish for them; also, cabbage heads, chopped up and added to their dough; in fact, any kind of vegetable substances are good for them. Of the choice of grain, for laying exclusively, oats should be furnished them, with a mess of buckwheat now and then. Where they cannot procure gravel, sand or ashes should be liberally strewn over the bottom of their coops; and occasionally they ought to have some clam or oyster shells, pounded fine and put into their food; bone-meal is another good ingredient to give them, all going towards forming the shells of eggs; fresh meat, whenever conveniently to be had, might be added to the list of feed, for the keeping of fowls."

HOW TO PREVENT SORE SHOULDERS IN WORKING HORSES.—An exchange says:—"The plan we have tried and never found to fail, is to get a piece of leather and have it cut into such a shape as to lie snugly between the shoulders of the horse and the collar. This fends off all the frictions, as the collar slips and moves on the leather, and not on the shoulders of the horse. Chafing is caused by friction; hence this remedy is quite a plausible one, and is much better than tying slips of leather and pads of sheepskin under the collar."

YIELD OF CARROTS.—Mr. ISAAC LENTY, of Sanilac Co., Mich., states in the *Michigan Farmer*, that from five square rods of land he raised forty-seven bushels of carrots the past season. This is at the rate of 1,400 bushels per acre.

CHANGING SEED CORN AND WHEAT FROM NORTH TO SOUTH, AND THE CONTRARY

Eds. Genesee Farmer:—It is several years since I raised this question, taking ground in favor of procuring seed from a distance *north* of any given latitude, when practicable. There have since been probably a hundred articles written, touching on one point or another of the subject. Still it retains its interest, and continues to be investigated and argued with zeal and ability, that show unmistakably that it has not been exhausted, either as to its theory or its facts; and it may, I think, be added, that its leading principles have not been agreed upon, and it is doubtful if they are fully understood. I will therefore offer a few considerations of a practical nature. And as there appears to be a paradoxical opinion extant as to the propriety of changing corn, as distinguished from wheat, for seed, I propose to consider them, in connexion with the influence of temperature, together.

There is no doubt that plants acquire habit, to some extent: that is, that they will *tend* to grow and mature to a given extent, in an equal length of time, after as before being changed. That is, the seed from the South or North will have the tendency originally characterizing it, before it was transferred. But tendency is one thing; the *general conditions* of growth another. Tendency alone does not prove capacity to make growth; nor give power or conditions upon which it depends. The power to make mature growth is *not* inherent, but depends upon conditions of climate, and soil, and culture.

The newly-planted seed germ has substances which supply the elements of germinal growth—which will vary slightly, according as conditions of soil and temperature are more or less favorable. But the substance of the seed has its vital elements transformed and *exhausted* during the process of germination, in making rudimentary roots and stems, which absorb them, with vital properties—less important parts of the seed dying and decaying. The seed supplies only a certain and *limited* quantity of the elements of growth in any form; consequently, when these are exhausted, the extent of growth that can be derived from them is reached. Of course, the *general* law of natural reproduction remains in force; but when the germinal elements are exhausted, the time and extent of future growth depend upon the soil and climate, *not* upon the exhausted properties of the seed, that—because it has served its natural purpose—literally do not exist. The peculiar "tendency" to make either early or late growth must be exhausted, I think, therefore, when the properties or substances supporting germination are exhausted. After this stage of it, the influences of soil and climate will determine the extent of growth, within limits, and also the time of maturity. In a word, soil and *climate* supply the means, and therein *control* the rate of growth and determine the period of maturity, as paramount and *ruling* forces.

In a few familiar examples we may see this principle so illustrated as to show very distinctly the effects of heat as a *predominating* condition of climate and relative growth. And this will apply with equal force to corn and wheat, either South or North.

Every farmer sees that his wheat harvest is earlier when there is more heat in a given time—when the season is earlier and *warmer*, and earlier *because* warmer; and that when it is cold and cloudy, little growth and advance toward maturity are made, because there is less heat absorbed by the crop in the *same* length of time, or part of the season. Such facts are as familiar as the seasons that produce them; and is not the principle as applicable to corn as to wheat? Is it not notorious that good and bad corn seasons follow from a high or low degree of mean heat, other considerations being favorable? The heat of spring is sufficient for wheat when corn will not grow; and, requiring a less total of heat, wheat will ripen early in a good corn season, if it gets a good start in April. Look at the corn and wheat crops—both from the same general cause—last season. And look at the failure of England's cereals, because the mean degree of heat was so *low* that the total of heat absorbed in the season was insufficient to ripen the grain.

Rate of growth and time of maturity must, I believe, therefore, be governed by the quantity of heat during the usual season of growth, within limits favorable to growth itself, generally.

We see, then, that more rapid growth follows a higher mean heat, on our farms at home; and that wheat and corn are fit to harvest earlier, whether North or South, from the same general controling force. As we get earlier maturity from more general heat or warm weather, what difference can it make in the principle or force producing this result, whether the seed goes to the heat, South, or the heat comes, as we see, to where the seed is, without changing, North? Where was the "inherent" tendency of the seed in England and France last summer, when the general heat was too low to admit of, or *force*, growth, with *ordinary* rapidity?

I remember that John Johnston's *Early May*, two years ago, *started* well the first part of the season; but after the germinal forces were exhausted, the *inherited* tendency to mature early also disappeared. His *Early May* and *Mediterranean* eared out at the same time; but after that—when the most heat was required in the intensified effort that concentrates the vital properties of growth in the formation of seed—the *May* lagged in the race, taking a week more time to ripen its seed from the period when ears first appeared in *both* varieties, than the already acclimated *Mediterranean*.

The degree of heat may be so great as to injure growing wheat, while it benefits corn; but this does not effect the general principle that rate of growth and time of maturity will be as the mean degree of heat absorbed. I have grown large white Southern corn, with stalks thirteen feet high; but not a seed ripened, because it was *not* acclimated. On the other hand, the *King Philip*—the best *quality* of corn grown—though derived from way down in Maine, I believe, always ripens perfectly in about ninety days.

I have seen it stated that *Mediterranean* wheat—and indeed *most* varieties—run out or deteriorate rapidly in the latitude of Kentucky; and letters recently received from four Southern States leave no doubt of this being *generally* correct. Southern gardeners and planters have long been in the habit of procuring seeds north of their locality; and I have no doubt that *Early May*, and other wheats

that have acquired an ephemeral reputation, were recently derived from the North—their *unusual* earliness South being an effect, a higher mean degree of heat—a change conducive at once to fast growth and early ripening. Are we to expect similiar effects when the change is *reversed* in most important conditions affecting the growth of wheat? On the contrary, like cause, like consequence; with decreased force in the agencies of it, we must expect less rapid growth and later maturity. Such is the natural principle; and if wheat be an exception, this is *not* so within my observation of facts.

Experience in wheat growing has convinced me of two or three things: That a change should never be from a better to worse soil, unless the latter be *above* average fertility; and that, soils being nearly equal, if either early maturity, in a *permanent* sense, or *good quality*, be desired, they will be more certainly attained by the use of more concentrated, vitalized, hardy Northern seed, than the contrary. J. W. CLARKE.

REMARKS.—We have hitherto given our views on this subject, and can not again discuss it at this time. We expressed the opinion that a plant has a "*tendency*" to mature at the same time as the plant from which the seed was obtained; and that, if early maturity is the object, seed *corn* should be brought from a northern, and seed *wheat* from a southern, latitude—for this reason: Corn ripens earlier at the North than at the South; while wheat ripens earlier at the South than at the North.

We may be mistaken in this matter; and have invited the fullest and freest discussion of the subject in our columns. The question can only be determined by *facts*; but we are obliged to admit that the majority of the writers who have favored us with their views on this subject, have given us more speculations than well-ascertained facts. We think our correspondent will allow that such is the character of the above article. The only fact he brings forward—in regard to the Southern corn—appears to us to favor our own view of the matter, rather than the one he advocates. EDS.

ON REARING CALVES.

E. MAYNARD, of Jefferson Co., N. Y., writes:

"My manner of rearing calves is this:—Take them from the cow as soon as the milk is good, and learn them to drink on new milk. I would not offer them their first mess in less than twelve or eighteen hours after being taken from the cow. Say remove them the middle of the afternoon, and offer the mess the next morning. Back them into a corner to prevent their wheeling about, get astride the neck, and with a boy to hold the dish, put the left hand on the top of the head, and with a finger in his mouth, put his nose gently into the milk, and if he has sense enough to be worth raising, he will 'eat when he is hungry.' When he sucks the finger readily, draw it gently from his mouth, and leave it resting against his nose. In this way he will soon learn to drink without anything in his mouth.

"I give him new milk a week or two, then add a little warm skimmed milk, adding more and more by degrees, until he will drink all skimmed milk. At the season when milk sours, I add a little sour, and repeat the process until he will take all sour. I think thick milk preferable to any other skimmed milk for a calf.

"I do not say you can raise as good a calf on skimmed as on new milk, but I do say to raise one on new milk as good as I can on skimmed, will cost five times as much. One error that many persons fall into in feeding skimmed milk is, they feed too much while the calf is young. Two or three quarts twice a day is quite plenty for several weeks; increase the quantity as he gets older. Two gallons at a mess when he is three months old will do him no harm, and if he gets it three times a day at four months, all the better.

"Many persons wean their calves by midsummer; I would feed them as long as the cows gave milk. *Good* calves and *good* pigs seldom grow well together. I never knew a man to get a premium on both at the same fair.

"Calves should be kept warm and dry the first winter, and fed on good hay, with a little bran or shorts, *and dealt with gently*."

A gentleman in this state, who has had considerable experience in rearing calves, remarks:

"There are two very good ways of raising calves, besides letting them run with the cow, which is seldom done by calf raisers. One way is, to let the calf run with the cow until three or four days old, then put it in a yard, and feed it new milk for three or four weeks, when it may be fed on part skimmed milk for a few days, when it may be fed entirely on skimmed milk, with the addition of a little meal or wheat shorts. After two or three weeks, the calves should be turned into a pasture by themselves, where they can get plenty of grass and clear water, but they should be fed with milk until three months old, when the milk may be left off, and only a little meal or shorts given; but they should receive some other feed beside grass, all along through the fall and winter, when they will come out as spry as deer, and their hair smooth and glossy and free from lice or disease.

"The other way is, to put the calf to skimmed milk after the first week, and continue feeding the same until three months old, letting the calf have what grass it will eat."

Our correspondent prefers the first method, and adds:

"Calves should have salt at least once a week all summer, as it makes them healthier, and I think keeps off many diseases that prove fatal to calves; at least I have always practiced salting my calves, and have never lost any by the diseases that destroy so many in the latter part of summer; while others, who did not use it, have lost numbers."

SCRATCHES ON HORSES.—Wash their feet and legs clean, and when dry paint them with white lead. One or two dressings only will be needed.

NOTES FROM CANADA WEST.

Eds. Gen. Farmer:—I have read the February number of the *Farmer* with deep interest, and, I believe, with more profit than the cost of an entire volume. The prize essays are excellent, and can not fail to instruct a very large portion of your readers. It must be expected that we differ in some respects in the details; but in the general features and principles we agree.

Every reasonable man will admit that it is to his interest, and it should be his pleasure, to endeavor to lessen the labors of his wife and daughters. He strives to make his own labors less by making everything outside convenient and time-saving. Gates, instead of bars, are erected; mowing and reaping machines supersede the scythe and cradle; the sawing machine in place of the axe; and in every way that horse-power can be applied, it is done, with a view to lessen labor and gain time. We try to arrange our fields and out-buildings in such a manner as to obtain convenience in every respect; and why should we be less solicitous in regard to arrangements in and around the dwelling house? It is truly said that "women's work is never done." While the "lord of the soil" can spend his winter in comparative ease, the wife and mother must labor and toil on, or the results are soon manifest in the appearance of the children's or the husband's linen, the untidy house and the absence of properly prepared food. It is our duty to study their comfort and ease as much as our own; in fact, we can not contribute to their pleasure without enbancing our own. Why should not the female portion of our families have the same privileges we enjoy? Why should not things be so arranged that they can do the principal part of the housework in the morning; devote the afternoon to sewing or pleasure, and be ready to sit down to read or engage in social conversation as soon as supper is over? The effects of such a system—for it requires mutual and systematic efforts to establish it—would produce a salutary and favorable influence on all the members of the family, and would materially assist in "preventing farmers' sons from deserting their fathers' profession," by rendering the farmer's home a place of enjoyment, and the labors therein but pleasure.

Farmers' clubs, if properly conducted, must be a source of pleasure, and profit also. The old adage "two heads are better than one," etc., holds good here, as elsewhere. The experience of a large circle of practical farmers, on any given subject, is worthy the attention of any agriculturist, and more especially if he is a "new beginner." Farmers' sons would be specially benefited, either as listeners or taking part in the discussions; being naturally bashful, they would there acquire confidence, and ultimately become both speakers and writers on agricultural subjects.

We have established "A Farmers' Mutual Improvement Society"—that is synonymous with a Farmers' club—in our township. Our objects are to create a taste for reading; introduce a higher grade of farming; and promote sociality among the farmers. One of the members is appointed to write an essay, by way of introduction, on any given subject; after its reading, the members freely and fully discuss the subject, and finally arrive at some definite conclusions. Our next subject is: *What is the best system of rotation?* It is an interesting subject, and will likely receive a good share of attention.

"*Fancy Trotting Horses and Female Equestrianship.*"—I am glad to find that some of your sensible farmers are beginning to feel that to devote money for this purpose is a mal-appropriation of funds, that should be used for more honorable purposes and worthier objects. We, in this part of Canada at least, do not patronise that feature of hero(ine)ism.

I feel the importance of "*furnishing good tools to boys,*"—aye, and to men too—and commend the practice to all. It is profitable in every respect.

"*What do we make under-drains for?*"—Your essayist has written correctly as far as he has gone, but he has not enumerated one-half the advantages to be derived from under-drains. This is a subject that demands greater attention; as no branch of farm improvements can possibly increase the quantity and improve the quality, of almost every article of farm produce, in the same ratio. It has in many instances increased the yield of grain 100 per cent., and frequently more. It would require a long article to speak of the advantages of underdraining; but there are few, now-a-days, who require argument to convince them of this. All are satisfied of its utility; but, from a variety of causes, fail to put it in practice.

The Weather.—Snow fell in the second week of December; sleighs took the place of wheels immediately, and have continued without intermission ever since. There was very little snow until the last week in January, and it has continued to snow and drift almost every day since, until now the roads running north and south are almost impassable. In fact, I question whether I shall be able to post this letter for several days, unless it thaws. The snow here is about two feet deep on the level; further north, it is from four to six feet—if reports are correct. The mercury has seldom been below zero; but once it was 22° below.

Woodstock, Feb. 7, 1861. R. W. SAWTELL.

"Sweetening" Cut Hay for Cows.—A correspondent of the *Homestead*, in an account of a noted milk farm near Hartford, says the farmer, Mr. Gates, cuts most of his hay in winter, moistening it, and thoroughly mixing it with a thin swill of rye, corn and cotton-seed meal, and water, allowing the mass to lie from one feeding time to another, to swell and *sweeten* before using. "I say *sweeten*, not turn sour—he feeds before it comes to that." The writer thinks the process analagous to that undergone in a sour apple, which "if bruised on the side, the juice of that spot becomes decidedly sweet in a short time—the saccharine ferment, conversion of starch into sugar, and all that," taking place.

Lime and Salt to Destroy Wire Worms.—I mentioned in a former note my experiment to effect the destruction of the wire worm, by sowing equal quantities of fresh air-slaked lime and salt, at the rate of one bushel to the acre, and I take the opportunity of stating the result. All the worms have disappeared from the land, which produced a very heavy crop last season.—John Gibson, *C. W.*

FARM NOTES FROM PENNSYLVANIA.

The *Genesee Farmer* is an old favorite of mine. I have read it for a long time, nearly from the start, preserved all the numbers, and had them bound regularly. It is an acquisition to my books that I consider of some value. In the January number of the *Farmer*, I noticed different views on the germination and on the sowing of seeds, and a desire to hear some more on the subject. I will endeavor to give you a few imperfect hints on our ways, as regards the sowing of seeds, etc. Clover seed is usually sown in the spring. I have had good success with seed that I had sown on a fresh-fallen snow in the latter end of March; when the snow goes away, it will work into the soft surface of the earth. Frost and wet will not injure the seed before germination. Ordinarily, I wait until warm weather commences, about the time vegetaton starts, and the ground somewhat dry on the surface, which causes it to crack open. Sow on a calm morning; the seed will to a large extent go into the crevices, and the first rain afterward will cover those crevices and the seed to a proper thickness.

The *Tribune's* process of plowing seed clover in, really is a novelty to me. We sow in the spring, on land that is with winter grain; if sown in the fall, or at the time we sow our winter grain, it is too feeble, and will not endure the winter. Timothy we sow at the time of the winter grain sowing, right after the drill, which is so arranged or constructed that we can sow the timothy at the same time, which I intend to discard, for the reason that some seed gets in too deep. I have had good clover, the seeds of which had been sown with oats, but during a drouth in the latter part of summer it would fail, more so than on other land, which I suppose was owing to the solidity of the land.

A heavy crop of clover plowed down, we consider equal to a light dressing of barn-yard manure, and raise as good crops of wheat and rye, as on any other land we have. Generally take such fields that have been to grass two or three years previous, which we plow ordinarily deep, not so much so as we would for corn, about thirty days previous to seeding, if it can be so arranged. Plow once, but well, harrow thoroughly before seeding, and avoid the cultivator if it can be, for the reason of leaving the grass down. My soil is a loamy gravel, contiguous to a heavy lime-stone. Our principal fertilizers consist of lime and barn-yard manure. Nearly all the mineral manures have been tried, with about as much cost as profit. I once so told a dealer in them, who complimented me by saying, "your land is too good." I find compost a profitable manure, for which every farmer has the materials. We take all the meadow ditch cleanings, sods in the road and fence corners, yard scrapings, mud out of roads and lanes where cattle run, and other things, and cart the same on a heap, intermixing a small quantity of slacked lime, which neutralizes the acids. After a certain time we work the same around with shovels, and saturate with liquid manure, until the same becomes rich enough; then cart out on stubble or sod land, plow down and put the same to wheat, and if we get wheat at all, we get it on this land. If clover hay would command a price like timothy, I would confine myself to the clover entirely, the ammoniacal properties in clover exceeding that of most other grasses. Timothy with us is rather exhausting to the soil. Cattle fed on clover hay, field turnips, and a little bran or chaff, will give good manure.

Your article in the January number of the *Farmer*, on the management of barn-yard manure, should be impressed on every farmer's mind, excepting that part where you recommend the stirring and mixing of manure by hogs—the more stirring, the more escaping of ammonia. Mix as you take it from the stables is better; the least disturbance and the most compression is what manure heaps want; it will retard fermentation. Two or three applications of fine muck or peat spread over the manure at intervals will retard fermentation, because it excludes the air. All manure yards should be on the basin plan. Some object that the manure would not decay, which is erroneous; my yard is so constructed, with large quantities of liquid in at times. At drawing out I find it more decayed than I desire, which is caused by the frequent tapping off of the liquid, admitting that straw or coarse manure constantly immersed in liquid will not decay so freely. Finally, to all those that do not wish the trouble with liquid manure, the old draining off—running into rocks, lanes, creeks and roads—plan, is the most convenient, but not the most profitable.

L. Heidelberg, Berks County, Pa. D. B. LORAH.

Catching Rats.—A professional rat-catcher, says the *Homestead*, would certainly make a profitable business in this country. These people are frequently met with in England and on the continent. They will divest premises of rats, fill up the holes with broken crockery, glass and mortar, and do it all in a very short time. They carry ferrets to go through the runs and into their holes, with traps set at the holes, catch the rats as they are driven out, and with terrier dogs those that escape are overtaken. Thus a barn, granary, or house, is freed of rats, and a good honest rat-catcher will leave it so that they will not come back for a long time. Stories are told of enterprising business men of this profession who would create a want for their services, sending forward the rats caught in one village, in good condition, to stock another not far off. This has led to heavy fines being imposed upon any of this craft found with live rats in their possession. We believe also it is not an uncommon practice for contracts to be entered into whereby for a course of years a rat-catcher agrees to keep certain premises free from rats for a consideration. We are indebted to these rat-catchers for much of the "kid" of which kid gloves are made. Country bred, corn-fed rats have probably better hides than the city-sewer denizens of Paris.

To Dress Sheepskins.—Mr. Eastwood wants to know how to dress sheepskins. My father has a receipt for dressing them with the wool on. It is as follows: Nail the skin on a board, with the flesh side out; rub on plenty of powdered chalk; after it is dry and begins to rub off, rub on some alum and roll it up and lay it in a dry place three or four days; shake it out and rub it well.—S. W. Johnson, *Fairfield, Conn.*

THE POTATO DISEASE.

The recurrence of the potato disease this season in almost every county has dissipated all hope that it will ever die out or exhaust itself. It is now fifteen years since it first made its appearance; and although a few seasons of comparative immunity from its ravages have since intervened, encouraging the supposition that it was a temporary epidemic, arising possibly from a culmination of one of those cycles of the earth's revolutions which, there is reason to believe, affect the atmosphere, although in too occult a manner to be detected. Still it is evident that it has been latent, showing itself here and there, with decreased virulence, it is true, but still with the same characteristics. This season, however, it has assumed a power and a development quite equal in degree, if not in universality, to that of the year 1847; but, at the same time, so partial and fitful have been its ravages, that it is impossible to assign them to any cause existing in the exceptional atmospherical phenomena by which other crops have been so seriously affected. In many districts of England it has prevailed to such an extent, that in some cases the crop has not been considered worth raising; whilst in others scarcely a tuber is injured, and the average yield is beyond all precedent. Thus, we have heard of an instance in which a farmer has sold sixty acres for £4,200 ($21,000), being at the rate of £70 ($350) per acre. There is not a doubt that had the disease kept off, the crop this season would, in the light-land districts, have been the largest ever known. But if we may judge from the agricultural reports from various parts inserted from time to time in this journal, the aggregate of the saved tubers will be much below the average, even if those already stored should be preserved from further injury.

Scotland is represented to be comparatively exempt from this scourge; but in Ireland it has appeared with similar capriciousness as in England. In the northern parts of that country the price alone—ranging from 14 to 20 cents per stone of 16 lbs.—proves the virulence and extent of its ravages. In other districts the range of price from 10 to 14 cents per stone indicates a corresponding freedom from it. Its prevalence, however, is sufficiently great to render a large importation of Indian corn requisite to supply the deficiency it creates in the food of the working-classes. Happily, these are in a far better condition than in 1847, labor being abundant and remunerative; so that there is no fear of a recurrence of that awful scourge which then decimated the population of that country.

In France and Germany the destruction of the crop is extensive, and in some parts of the former country will be severely felt by the laboring classes.

In America, the disease has been particularly fatal, especially in the Northern States.

The mystery in which the origin of this singular disease is involved, is as great as it was when it first appeared; nor is there the slightest prospect of its being ever cleared up or explained. The alternations of wet and dry, hot and cold weather, appear to have no influence whatever, as the disease has raged under all temperatures and all kinds of seasons. In America the weather this year has been just the reverse of what we have experienced here; and yet the disease has been more fatal there than with us. The only atmospheric phenomenon which appears to have been identified with its origin is the thunder-storm. Many persons have noticed that lightning has been in most cases immediately followed by the disease; and we have known a field of early potatoes entirely destroyed in one night by storm and lightning. In contradiction, however, to this, it may be said, that tempests have in all past seasons occurred, but the disease did not always exist; and therefore that it is not a necessary consequence of a thunder-storm. There is one peculiarity in the character of the disease this season that distinguishes it from former visitations—it is that, after attacking the tubers with its usual—or probably with *unusual*—violence, it suddenly ceased; and the potatoes that remained have been found perfectly sound, and are stored in the best condition. —*London Mark Lane Express.*

"KEEP A DOSIN' ON HER!"

My neighbor once had a fine cow taken sick. He called the disease "horn distemper"—whether it was or not I do not know;—all diseases which kine have in that section are called by that name. What it really was don't matter. My neighbor, proceeding to extremes at once, bored the cow's horns, and cut off a piece of her tail. The operation on these parts, though undoubtedly having the trouble between them, failed to reach it, and the cow rapidly grew worse. Doses of salts, and oil—doubled and trebled, with such remedies in the way of strong teas and decoctions as the combined ingenuity of the neighborhood (which in such cases is little short of diabolical) suggested, and were poured down the throat of the unfortunate animal, but with no good effect.

As the death of the cow grew more certain, the character of the remedies was more desperate. Croton oil was one of the last resorts, I believe. It was given just before the case came to my knowledge, by over-hearing the owner recount the trouble he'd been at, and the remedies he had given, to an old farmer who lived hard by—the cow dying helpless in sight of both.

After listening to the recital with the usual expressions of condolence, the old man sang out, "Well, *keep a dosin' on her!*" and drove away home. After the cow was dead and buried, her owner had the candor to confess that he didn't know whether it was disease or medicine that killed her.

If this was an isolated case, it would not deserve notice; but it is not. I believe it to be one of thousands. In sickness the anxiety to "*do* something," leads to administering a flood of medicaments, often sufficient to kill the patient, aside from disease. The general rule in fact is, so long as life lasts, to "keep a dosin' on her!"—*Homestead.*

What Spring Crop Shall we Seed With?—I have always had the best success seeding with barley; wheat next, and oats last.—Peter Cameron, *Duanesburgh, N. Y.*

SHOULD CATTLE EAT SALT?

Eds. Gen. Farmer:—In the *Farmer* for October, page 309, you append a note to O. W. T.'s quotation from Boussingault, who proved by experiment that "the increase in the proportion of flesh does not pay for the salt employed." Your note reads: "This is true; but Boussingault distinctly stated that the cattle having the salt were more healthy and active than those that received none"; from which it appears that you suppose salt may be favorable to the health of animals. My own experience assures me that such is not the fact. But I have not time to give an account of that at present; and, indeed, O. W. T. gives, by implication, the best of reasons against salting stock, viz: "if food is what it ought to be, its constituents will contain an abundance of salt," which is true, because bad consequences in some form always follow the use of artificially concentrated substances, or the use of food that has its natural proportions changed. I have carefully read what Peieira says about salt being an aliment, and must conclude that it is in no sense alimentary, but, on the contrary, is a noxious agent and obstructive of alimentary processes in the animal system.

Chemists seem to assume that the animal system is a chemical laboratory, where substances combine and separate according to their known affinities as dead or unorganized matters. But this is assuming too much; for, though the chemical properties of the gastric and other fluids are fitted to exert a solvent effect, true digestive results will *not* be produced without mechanical and vital action in a superior degree. Chemical affinities, in fact, act in only a secondary and subordinate manner, under the influence and aided by the force of mechanical and vital or living functions of the animal body; which, therefore, is not a laboratory, but a manufactory of animal tissues from vegetable food. And these same chemists have stated, *as thousands of generations of animals have demonstrated*, that *all* the *necessary* constituents of animal bodies exist in the herbage on which they usually subsist.

Chemists say many absurd things, equally with other people, and frequently take very narrow views of natural processes. For instance, they say "salt is found in the blood; it is therefore a necessary constituent of animal bodies." Both statements are incorrect. Salt is *not* found in the muscular tissues of animals, nor, as might be expected, in the pure arterial or true blood, from which only the necessary parts of animal structures are formed; but exists, as salt, in the black or venous blood merely. The venous blood, so far from being blood in the *nutritive* sense, is *refuse* matter, composed of the impurities which the tissues have rejected because they are impure and unfit for forming vital structure. The venous blood is "black" comparatively, because it contains more poison—carbon, etc.,—and less oxygen than the pure or arterial current. In fact and comparatively, venous blood, in which only salt is found, is therefore refuse or excrementatious in quality. And salt being found in this unassimilable fluid affords the strongest presumptive evidence that it has been rejected because it was *not*—and can not be—alimentary or nourishing in any way.

Again: salt is found in the venous current as salt, and therefore can have served no useful purpose, because it has not been *digested*. Every substance that is digested disappears, as such; its constituents going to form new substances with new and *different* qualities. This is a chemical law and maxim. Though salt may be fed by design, it is not digestible nor alimentary, as is evident from its being confined to the refuse blood, the receptacle of noxious matters unfit to enter any more vital part.

Every indigestible substance introduced into the animal body causes unusual activity and effort, and wear and waste, in attempts to expel it; and is, therefore, obstructive of the natural functions, and to that extent, poisonous, injurious, incompatible, foreign matter. Many such substances enter the bodies of men and animals—salt among them—accidentally; that is, without being selected or required by nature in her unimpaired integrity and healthful functions.

Hence we frequently see that animals which consume salt are "more active," because its stimulating action—as I have frequently experienced—causes excessive irritation in the lungs and stomach; outward activity resulting from interior conditions. But the health resulting from activity so induced is *spurious*, unnatural, not real. Such at least is my view of the effect of salting.

Animals that have salt, throw it out through their skins—the natural channel for the escape of impure substances, next to the lungs. Perspiration, in its various degrees, is generally salt. When animals have more salt than is natural,—which is all that is given them as salt—they lick their hides much for the sake of the taste and stimulation, *a la mode* with tobacco chewers, opium eaters, etc., without limit. This licking is considered by many stockmen to be a sign of health; but, while it certainly causes the *different appearance* so often insisted on by men who salt their stock, it is simply a sign that the cattle have become addicted to habits, and having found a stimulating sensation from licking their hides, they continue the practice. The different appearance in salted animals directly results from licking—licking from a salty perspiration. And the excessive *activity* and *difference of appearance* result from inward irritation and outside stimulation, as the only advantages of giving salt.

J. W. CLARKE.

Wisconsin.

Sowing Plaster.—I think that in sowing plaster, a considerable portion of the best part is carried away by the air, be the weather ever so still I have watched it for 30 or 40 yards in the calmest weather and still rising. I find that by spreading it on a floor, watering with a watering pot sufficiently to dampen well through, and raking, is a remedy as regards sowing. Do you think this diminishes its strength; and if not, how long would plaster keep in this state without loss of strength?

Moistening the plaster cannot injure it. It might be kept for any length of time without loss.

Slabbers in Horses.—Green Burdock leaves, it is said, will cure the slabbers in a horse in fifteen minutes, if he will eat them; and usually a horse troubled in that way will eat them.

SHEEP ON WHEAT FARMS.

Rawson Harmon, an extensive wheat-grower and sheep-breeder of Wheatland, N. Y., says:

"For many years we have kept two sheep to the acre of wheat land; say for 150 acres, 300 sheep may be kept, and the regular rotation of the wheat and clover kept up on the 150 acres, 40 of which should be in wheat each year, and 10 in corn and roots. Clover seed should be sown in March or April, six quarts to the acre, and as soon as the ground is dry in the spring, one bushel of plaster should be sown to the acre. Barley or oats should follow corn and roots, and seeded as above. So we have 50 acres seeded with clover each year, 10 in corn and roots—leaving 90 acres for pasturing and mowing. A team is to be kept for the work on the farm, and three or four cows, for the use of the family; and no other stock should be kept, except hogs, for the family use, and they should be limited, for mutton is cheaper and more wholesome meat than pork. The above, for the use of the family, is all the stock that should be kept on a wheat-growing farm, except sheep; and with the above amount of land, 300 sheep may be kept and well cared for. They should be kept at the barn till the first of May, when they should be turned on to the fields which the corn and root crops are to occupy, and where the wheat is to be sown, remaining till the clover in the pastures is half grown; then give the sheep a chance at that, which will keep them till the clover commences heading out where the wheat and barley have been harvested. One great cause of failure in sheep husbandry is in letting the sheep run on the pastures long after clover has done growing, and in the spring before it commences growing, when there is no tallow in the clover, and it is gnawed into the ground, and much of it destroyed."

COMPOST FOR CORN.

The Rev. H. H. Thompson, of Crawford Co., Pa., writes us as follows:

In renewing my subscription for the *Genesee Farmer*, permit me to give you the result of an experiment made the past summer, showing the advantage of compost as applied to corn.

Last spring I made a compost of the following ingredients: the contents of my hen-house (which was the product of twenty-five hens for one year), 17 bushels; ashes, 17 bushels, and 700 lbs. of plaster. This sufficed for nine acres. About a large spoonful was applied to each hill and covered with the corn. In planting, I left twelve rows across the field to which no compost was applied. After the corn was up, plaster was applied to the part that had been composted, and also to six of the rows that were left uncomposted at the time of planting.

The beneficial effects of the compost and also of the plaster were very noticeable all through the summer, and when we harvested the corn the result was very decided. The six rows that had no stimulant applied yielded 17 bushels; the six with plaster only, 18 bushels, and six with compost and plaster both yielded 22 bushels. The rows were 28 rods long, and there were 247 rows in the field. Taking these figures as our data, it would make as the product of the compost and plaster, 206 bushels over what the field would have produced without them. Corn is worth twenty-five cents a bushel here this fall; hence we have $51.50 for an outlay of $3 for the plaster and about four days additional labor. The other materials were produced on the farm and cost us nothing.

The nine acres produced 975 bushels, which is considered a very good crop in our country.

HINTS ON THE MANAGEMENT OF SHEEP.

Gen. Harmon, of this county, in a communication to the *Journal of the N.Y. State Ag. Society*, gives the following hints in regard to the management of sheep, which, coming as they do from a gentleman of close observation and large experience, will be read with interest:

"For winter management, most farmers fail, in giving their sheep too much run. Where they are stabled, or kept in close sheds and not suffered to run at large, from November till May, one-fourth of the food can be saved, the flock kept in better condition, giving one-fourth more wool, and making twice the amount of the most valuable manure made on the farm. From fifty to one hundred are to be kept in a flock. Sheep of about the same weight should be kept together; where lambs or yearlings are suffered to run with full-grown sheep they will not do as well. Lambs should be taken from the ewes about the 20th of August, if dropped in the month of May, and a few yearlings put with them, and they will be more easily controlled, and by the 20th of September they should be fed moderately with oats or bran and a little salt every day, so that by the time they come to the barn they are tame and in good condition for wintering. The first clover in the barley field would be a favorable field for lambs. Wethers, three past, and ewes that begin to lose their teeth, should be put in one yard, and grained through the winter, and then they will be fit for the butcher, and will pay for the food they have consumed; and must be disposed of, so as to give place for the increase. No sheep should be sold from the farm till they have come to full maturity. The selling of lambs to the butchers, is ruinous to the flock—or letting butchers go in and take the best of the flock. Old sheep, as well as lambs, should have some grain or roots every day while at the barn. Sheep will pay much better for the grain they eat than the man you sell to will. No animal kept on the farm pays better than the sheep—for their rapid increase, with their fleece and meat, give a better return for what they consume than any stock kept on a grain farm."

Feed Bones to the Hens.—If you take fresh bones from the kitchen, and with a sledge, on a rock, or any natural or artificial anvil, pound them up into small pieces, hens will eat them ravenously, and not only will they digest the bones and make a better manure of them than can be made in any other way, but they will be themselves greatly benefitted by them; they will lay throughout the season with much greater regularity than otherwise, and will fatten on the marrow within, and the fat and muscle will adhere to the bones.—*The Homestead.*

ON THE STUDY OF NATURAL HISTORY.

In an industrial country like this, the practical utility of any study must needs be always thrown into the scale; and natural history seems at first sight somewhat unpractical. What money will it earn for a man in after-life? is a question which will be asked, and which it is folly to despise; for, if the only answer be, "None at all," a man has a right to rejoin: "Then let me take up some pursuit which will train and refresh my mind as much as this one, and yet be of pecuniary benefit to me, some day." If you can find such a study, by all means follow it; but I say that this study, too, may be of great practical benefit in after-life. How much money have I seen wasted for want of a little knowledge of botany, geology, or chemistry. How many a clever man becomes the dupe of empirics for want of a little science. How many a mine is sought for where no mine could lie; or crops attempted to be grown, where no such crop could grow. How many a hidden treasure, on the other hand, do men walk over unheeding. How many a new material, how many an improved process in manufacture is possible, yet is passed over, for want of a little science. And for the man who emigrates and comes in contact with rude nature, teeming with unsuspected wealth, of what incalculable advantage to have if it be but the rudiments of those sciences, which will tell him the properties, and therefore the value, of the plants, the animals, the minerals, the climates, with which he meets. True, home-learned natural history will not altogether teach him about these things, because most of them must needs be new; but it will teach him to compare and classify them as he finds them, and so, by analogy with things already known to him, to discover their intrinsic worth.

A friend of mine, and one whom I am proud to call my friend, succeeded to an estate, and thought good to cultivate it himself. And being a man of common sense, he thought good to know something of what he was doing. And he said to himself: "The soil, and the rain, and the air, are my raw materials. I ought surely then to find out what soil, and rain, and air, are; so I must become a geologist and a meteorologist. Vegetable substances are what I am to make, and I ought surely to know what it is I am making; so I must become a botanist. The raw material does somehow or other become manufactured into the produce; the soil into the vegetable. I ought surely to know a little about the processes of my own manufacture; so I must learn chemistry. Chance and blind custom are not enough for me. At best, they can but leave me where they found me, at their mercy. Science I need; and science I will acquire." What was the result? After many a mistake and disappointment, he succeeded in discovering on his own estate a mine of unsuspected wealth,—not of gold, indeed, but of gold's worth—the elements of human food. He discovered why some parts of his estate were fertile, while others were barren; and by applying the knowledge thus gained, he converted some of his most barren fields into the most fertile ones; he preserved, again and again, his crops from blight, while those of others perished all around him; he won for himself wealth, and the respect and honor of men of science, while those around him, slowly opening their eyes to his improvements, followed his lessons at second-hand, till the whole agriculture of an important district has become gradually but permanently improved, under the auspices of one patient and brave man, who knew that knowledge is power, and that only by obeying nature can man conquer her. CHARLES KINGSLEY.

PROFITS OF TURKEY RAISING.

In the *Genesee Farmer* of last month, I saw a statement under "Maine Items," that turkey raising, as a general result, was not very profitable. This neither agrees with our experience nor observation. We know of many farmers who rely on their turkeys to pay their rents, and we are satisfied that it costs us less to make a pound of turkey than a pound of pork, and it usually brings us nearly twice as much in market.

As to their being difficult to raise, we think them no more so than chickens; nor do we think that a turkey of from 14 lbs. to 20 lbs. costs us more than a chicken of from 3 lbs. to 4 lbs.* We were conversing with a farmer yesterday, who is very well qualified to judge in this matter. He informed us that the first year he used a bronze cock, he raised one hundred young turkeys, and sold fifty at one time in market for $100, and, said he, "I do not think that the hundred turkeys cost me more than a hundred chickens at the same age." This was in accordance with our own experience, and we are satisfied that no stock on the farm which we fatten gives as great profit as turkeys.

West Thompson, Conn. H. S. RAMSDELL.

BUCKWHEAT FOR HOGS, ETC.—One of your correspondents asks if buckwheat is good for hogs. JOHN JOHNSTON says it is good for cattle, horses and sheep, and I say it is also good for hogs, as I have tried it, both ground and whole. I fed 50 bushels one fall and winter, without any of the itching effects that are ascribed to it. For fatting or wintering hogs, I consider it, when ground, as good as shelled corn, bushel for bushel.

I would also say to those that think they can not feed corn profitably to hogs, that I have just killed and sold 3 hogs for $70, at 6 cents per lb., that were worth $36, at 5 cents per lb., when I commenced feeding them. I fed 50 bushels poor and 70 bushels good corn in the ear, making about 29 cents per bushel for the corn in the ear.

Amboy, Ohio, January, 1861. A. GREEN.

WHIPPING OXEN.—Thoughtless men will whip, whip, whip. They do it from a habit—a very bad habit; and we find it difficult to correct that habit. We are trying to teach our hired men better manners than to put on the whip before giving an invitation to the brute animals "to go on." We have oxen that will "go" as soon as they are invited, without the endorsement of the whip. Yet we find it a difficult matter to control the whip. It is surely a savage practice to apply the lash before inviting the animals to move by the proper words.—*Mass. Plowman.*

* We must express our dissent from this statement. It can not be that a turkey weighing 14 lbs. eats no more than a chicken weighing 4 lbs. It is contrary to common sense and common experience. EDS.

THE VEGETATION OF JAPAN.

JOHN G. VEITCH, a grandson of the celebrated English nurseryman of that name, is now in Japan, acting as Botanist to the British Legation. He is writing a series of interesting letters for the London *Gardners' Chronicle*, from which we learn many important facts in regard to the vegetation of this, hitherto, almost inaccessible country.

The most remarkable feature appears to be the vast preponderance of evergreens. The *Cryptomeria Japonica* (Cedar of Japan) is undoubtedly the finest tree in the country. It grows throughout the entire empire, attains a great height and circumference, and in point of beauty is truly magnificent. Mr. VEITCH says:

"Amongst the many splendid specimens we met with, I noted the following as being the most striking:—1st. On the main road from Ha-tu-jikee to Hakone, an avenue of several miles in length, three trees which I measured in succession were 15 feet, 14½, 13½ feet in circumference at three feet from the ground. 2d. On the road from Messima to Atame I met with three noble specimens standing singly in the midst of a small village, about 170 feet high, and 16 feet 6 inches in circumference at three feet from the ground. Near Atame we passed a forest remarkable for the peculiar straight trunks of the trees. They had grown in close proximity to each other, and consequently had lost the greater portion of their branches. The effect produced was very similar to that of an immense number of ships' masts. Mount Hakone, 7,000 feet in elevation, is clothed to the top with dense foreststs of Cryptomeria, Thujopsis dolabrata, Thuja pendula and orientalis, Retinospora obtusa and pisifera."

Mr. V., in company with twenty-seven other Europeans and twenty Japanese attendants, interpreters, etc., visited the great mountain of Japan, Fusi Yama. The mountain is said to be 14,000 feet high. This was the first party of foreigners ever permitted to go inland, or ascend the mountain.

The main crop of the country passed through is rice, grown generally in low marshy vallies, and irrigated; but in cases where the ground does not admit of irrigation, a kind is cultivated which succeeds in a dry soil. Two species of millet are largely grown, one a dwarf kind, two to three feet, and one tall, from five to six feet. The former is sown broadcast or in drills, while the latter is transplanted while young in single rows round the outer edges of the fields where the dwarf millet is grown. The egg plant (*Solanum esculentum*) is largely grown; and so are ginger and the *Dioscorea Batata*, or Chinese potato. Indian corn is grown in small quantities with variegated foliage; beans, several sorts, both dwarf and running. A dwarf kind of peas is grown in fields, and so is tobacco. Carrots, onions, pumpkins, gourds and cucumbers, are found in the gardens. The following fruits are also met with: cherries, chestnuts, figs, grapes, oranges, pears, peaches, plums, walnuts and melons. Of these fruits, Mr. V. remarks:

"Nothing is more disappointing to Europeans visiting Japan for the first time than the scarcity of fruit that everywhere prevails, and the insipid flavor of what is produced. No country can be more favorably situated for its cultivation. The soil is very rich and productive. The climate is all that can be desired, yet throughout the empire fruit is scarce and bad."

Mr. V. attributes this to the little attention paid to the production of new and improved varieties. Of peaches, pears and grapes, but one variety only is grown. He thinks that if a few of "the English fruit trees were imported and a fair trial given them, they would prove the soil and climate of Japan to be capable of producing fruit equal to any country in the world."

The main roads are planted with pine avenues. "These trees often attain the height of from 150 to 180 feet; their higher branches forming a perfect covered archway. The splendid effect thus produced by miles of noble trees, can scarcely be described." Oaks, maples, beech, lime (bass-wood), alder and chestnut, are also to be met with, and give a pleasing variety of foliage.

The last letter received from Mr. V. is dated Yeddo, Nov. 20, 1860, and appears in the *Gardners' Chronicle* of Feb. 2. We have space but for one extract:

"This city (Yeddo) is a wonderful place, supposed to be at least 20 to 25 miles in circumference, and surrounded on all sides by extensive suburbs; it is well worthy of all that has been said of it. The walks and rides in and about it are beautiful; magnificent clumps of trees, and valleys cultivated with rice, &c., continue into the very city itself, and often when in the centre of the town not a house can be seen—nothing but splendid banks of shrubbery and trees. The restrictions, however, placed upon the movements of foreigners are too great to allow of my walking about freely. Indeed, it is not safe to do so; I employ men, there-

fore, to bring me seeds and plants. * * The Japanese are certainly a very curious race of people, but depend upon it, sooner or later we shall have to give up all intercourse or have a quarrel with them. It is impossible to travel inland in any direction, and the difficulties become greater every day. Mr. FORTUNE [who is, or was, engaged by the American Patent Office to collect seeds, &c., in China] arrived here on the 12th inst. He is quite well."

It appears that after the return of the party from Mount Fusi Yama, a comic newspaper was written, having for its title "The Illustrated Fusi Yama Gazette," in which every one of the party was more or less caricatured, Mr. V. getting the lion's share. He was represented with a specimen case on his shoulders, with trees, &c., growing from all parts of it.

THE ERICKSON MUSCAT.

WE have to announce that a new seedling exotic grape has been originated in this city by AARON ERICKSON, Esq., from seed which he sowed of the *Canon Hall Muscat*, which has already proved itself worthy to rank in the first class of varieties suitable for vineries, either cold or warm. It has now fruited three years in the *cold vinery*, and has uniformly set its fruit as well as the *Black Hamburgh*, and ripens *before* that variety.

The bunch is about the same size and form as the *Canon Hall*; berries large, and rounder than those of that variety and fully equal to it in its rich, high, musky flavor.

While, with the varieties of the *Muscat* heretofore in cultivation, neither the fruit set well, nor the fruit nor the wood would ripen well in a cold vinery, we have combined in this new sort all the qualities that render it perfectly adapted to cultivation in a cold vinery; and the luxury of eating delicious *Muscats* will no longer be confined to those who have forcing houses.

The name we have placed at the head of this article is that by which the fruit is known in this vicinity, and which, we presume, is agreable to the originator, although on this subject we have had no conversation with him; indeed, we may say that his caution and modesty is such that by him the matter would not now have been made known, and we take the whole responsibillty upon ourselves, and believe that the public will find in this fruit a truly valuable acquisition.

F. R. H. S.—The London *Gardener's Chronicle* has "the satisfaction of announcing that Her Majesty has been most graciously pleased to permit the Horticultural Society to bear henceforward the name of the Royal Horticultural Society. Consequently the letters affixed to the names of Fellows will be F. R. H. S., instead of F. H. S." Prince ALBERT is President of the Society.

HORTICULTURAL NOTES FOR THE MONTH.

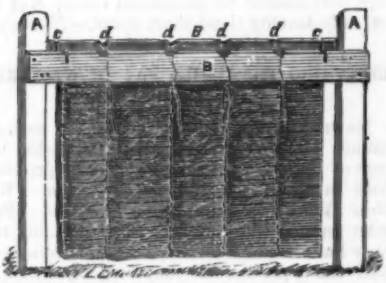
THIS will be a busy month in the garden, as a great deal of our success through the season will depend on the careful and active performance of the routine duties now coming thick upon us. In the open ground, seeds of onions, peas, parsneps, etc., should be got in as soon as possible; but should the ground be wet, it will not do to trample on it too much. Where there is the convenience of hot-beds, many crops may be sown in them, and transplanted to the open ground when all danger of frost is passed. For this purpose it is advisable to collect horse-manure, which can generally be procured in most places in the country. When collected, it should be laid in a body close together to ferment. After a fortnight or three weeks it will be in excellent order for use. A seed-bed should then be made of it, to raise such seeds that are too tender to sow out of doors at this early part of the season—tomatoes, egg-plants, peppers, cauliflowers, lettuce, etc. Sow the seeds in square shallow boxes, half-filled with mould. After sowing, lay a piece of glass on the top of the boxes, to prevent mice getting at them. Seeds of tender annuals should be sown in the same way, and put in the same frame; likewise cuttings of bedding-plants, that will be wanted for a summer show in the flower-beds.

FRUIT TREES.—Finish planting and pruning. Fork up the soil trodden down in doing so, and mulch newly-planted trees.

GRAPE-VINES.—Prune, if not done in the fall, and tie down horizontally to make them break the buds near the bottom.

ROSES.—Prune, but omit some to be done later for late blooming; apply a mulching of manure.

SHRUBS.—Thin out any that may be getting too thick; cut off any branches encroaching on the walks.



TO MAKE STRAW MATS.—Straw mats are often made for covering the hot-beds or cold frames instead of bast-mats, and are found to be much better and cheaper. They can be made in the following manner:—Drive two posts (*A*, *A*) into the ground, eight or ten feet apart. The posts should be an inch and a half to two inches wide. To these posts nail two boards (*B*, *B*), one on each side, so as to leave a space between them one and a half to two inches wide. Near each end of the boards, inside the posts, cut a deep, straight notch (*c*, *c*), to allow cutting the straw off straight at the ends. Notches (*d d*, *d d*) should be cut at intervals of about nine inches on the boards, say one inch deep, to keep the cords in their places. Tarred rope is best. Lay the straw on the cords between the boards in handfuls, and tie them tight with a single tie, reversing the strings; then put on another handful, and proceed as before, till the mat is made of the length desired. The last course should be tied with a double tie.

JAMES CRAIB.

HOW TO PRUNE STRAGGLING GRAPE-VINES.

A great many people have old grape-vines trained with no system except the general idea of covering in some way a sunny surface of house, wall, fence or trellis. The old vines have sent out their roots perhaps fifty feet in various directions, and thus have secured for themselves what we have denied them near at hand,—very fair pasturage. The vine is capable of producing a good deal of fruit; if left to itself it will yield but little; if pruned with a view to get all the fruit possible, in all probability it will not be able to ripen all that will grow. Moreover, when such a vine is made to produce its utmost, the highest branches will produce the best fruit, and it will often ripen on them when that at a lower level will not. From each joint (or bud) of last year's growth we may calculate on getting a shoot which will set for three or four clusters of grapes; and if it has light, air, and sufficient sustenance from the vine, it will ripen them.

Now if the vine *covers* as much surface as is desirable, it is best to allow it to have no more wood this year than last. So cut away freely. When new wood—strong canes of last year's growth—can be retained and substituted for canes of long standing, it is in many cases best to do so. If the old cane to be cut away is quite long, leave in its place a new one, of three or four feet, and calculate to continue the end shoot to make out the length in the course of the next year or two, though such long canes are *never* desirable. In fact, the whole system of allowing vines to grow in this straggling way is against all correct principles of vine-dressing and training. It is best usually to leave spurs of three buds, from which to allow bearing shoots to spring, and to rub off the inferior shoots or those not needed when they come to grow. Thus all the last year's wood, except that needed for permanent canes, will be cut off, only leaving these short spurs.—*Homestead.*

SOMETHING THAT WILL PAY IN WESTERN NEW YORK.

Raising choice winter apples, to *any* extent, cannot fail to be a paying enterprise in any part of these United States that will produce this fruit in abundance and in perfection. Western New York answers these conditions. Farmers who cannot spare cash to buy as many trees as they have room for—(that room, I believe, is full half the square rods they own on which apple trees can be made to grow)—can buy of the nurserymen for *one cent each*, grafts set in roots, which, by careful culture, will make trees fit for planting in the orchard in two or three years.

Let each man's apple plantation be of some *one* market variety,—say, King of Tompkins County, Baldwin, Greening, Russet, or any other as good. The reputation of such an orchard will be sure to bring a market to the trees that will pay better than any grain crop can, with the same amount of labor bestowed.

Apples are useful, at home, for feeding every domestic animal that the farm can profit by raising; and even the *refuse* of such orchards as I propose, will, as soon as in bearing, pay better for this purpose alone, than wheat ever did, and that, too, without seriously impoverishing the soil. So, it matters not how low the fruit may stand in market, if the purchaser pays anything and picks it himself, that sum, more or less, is *all profit.*

But the markets will more than keep pace with increased production. Our cities call for apples; large portions of our own country, as the Western prairies, and the entire South, will probably never produce half the apples they would be glad to consume; dried fruit goes to the ends of the earth; and even fresh apples are profitably exported. No fears need be the cause of delaying this profitable enterprise.

Plant apple trees. Plant *more* apple trees. Plant half the ground you own to apple trees. It will pay better than anything else your farm will produce.

Then raise, on the other half, grain and grass—sheep, cattle, swine and poultry—and export apples, butter and cheese, wool, beef, pork and mutton, and make your farms rich, and get rich yourselves. ‡‡ L. S. ‡‡

Attica, N. Y., Feb., 1861.

Growth of Trees.—In reply to C. H. Peck, in relation to the growth of trees above or below the limbs, I should think the limb raises with the body—or rather, raises as the body lengthens. The body does extend, as I am well aware from the evidence now before me. About fifty years ago, my father had me make holes in a young white oak for a fence that it stood in the range of. In seven years it had raised the end of the rails six inches higher than the post end. In fifty years, it has become a tree of two feet in diameter, and the holes are about eight inches above where they were first made. I have known several similar instances.

As to propagating tomatoes from cuttings: Cut off the branch; make a hole in a potato, stick the branch in, and plant in the shade. Water it two or three evenings if dry weather. This is all that is necessary to make it produce.—Z. Knapp, *Luzerne Co., Pa.*

IS IT BEST TO PLANT FRUIT TREES IN THE FALL OR SPRING?

We have received quite a number of replies to the above question, a few extracts from which will be interesting:

"Taking all things into consideration," says E. P. Barnes, of Pharsalia, N. Y., "I think fall planting the best. The planter then has more time to prepare his land, and get it in good condition for setting the trees. Fall planting, too, gives the soil a chance to settle around the roots, so that the trees are at home and ready for growing, as soon as the warm weather comes, in the spring."

A well-known writer of Massachusetts takes a different view of the matter. He prefers spring planting:

"After severing the trees in autumn from the vital heat of the earth, they are exposed to the severity of winter before having time to recover it

again by summer growth. To an extent, the sap circulates in trees in the winter; and it has been shown that the temperature of their central wood never runs so high or so low as the surrounding air, but keeps nearly within the range of 40 and 60 degrees Fah. Hence trees, when planted in the fall —in latitude 42 and north of it—are more likely to be winter-killed than when planted in the spring, as they are deprived of the warmth of their mother earth. As a general rule, the spring is undoubtedly the safest time to plant *all* trees; though some fruit trees will live in latitude 42 when set in the fall, as every one well knows. Apple trees are of this class. But those trees whose wood is spongy and formed rapidly, grow late, or have been much forced, are unsafe planted in the autumn, as the violence of transportation suddenly cuts them off (as before hinted) from warmth, particularly necessary for their preservation. Shearing a lamb in December would not be so impolitic. Peach and apricot trees very rarely live when set in autumn; cherry trees may possibly, and sometimes pear trees do tolerably well. But since I have lost several valuable ones of the latter, when thus planted, from one place to another in my garden, I dare not venture only on the poorest; and then am careful to get up as much soil with the roots as possible. Set in the spring, I have never lost a tree of any kind, except eight plum trees, bought at auction, whose death I do not regret."

F. H. H. also prefers spring planting. He says:

"In taking up a tree, the roots are more or less mutilated, and the tree enfeebled; and when set out in the fall, less able to withstand the rigors of winter, more liable to heave out with the frost, and to be blown down by the wind. It is sometimes said, by fall setting, the tree becomes more firm and the earth settled about the roots, and consequently will *start* earlier in the spring. But the same end may be obtained by early spring planting, before the heavy rains, or by watering at the time of planting."

W. Alexander, of Michigan, prefers to plant in the fall, especially when the trees have to be obtained from a distant nursery.

C. G. Brown, of Wisconsin, also advocates fall planting. Sometimes trees planted in the fall are injured by the "harder freezing of the ground where it has been disturbed, but this difficulty may be easily remedied by covering the roots with a greater depth of earth than it is intended shall remain upon them."

ORCHARDING IN KENTUCKY.

Eds. Genesee Farmer:—Having become very much interested in the cultivation of fruits, and feeling that I owe to you and your numerous correspondents a debt of gratitude for valuable information, consequently I hail each number of your valuable journal with eager delight; the horticultural department being always the first sought out and carefully examined for every new and interesting thought connected with the subject. And thinking probably there are other readers of the *Genesee Farmer* as much interested as myself, who would like to hear from this much neglected quarter, Southern Kentucky, where the soil and climate seem to be favorably adapted to most varieties of fruits, my remarks in this, my debut in the horticultural world, will be confined exclusively to throwing out a few hints relative to what I have done and what I expect to do in the way of fruit-growing. Being comparatively a new beginner, if I have done wrong, I hope to be corrected by you or some of your correspondents before I commit the same wrong again; my object being to carry on this, to me interesting, business with an eye to profit which I am persuaded will ultimately result satisfactorily, if commenced and carried on upon proper principles.

And now for my doings. A few years since I became impressed with the above facts; that is, that a properly managed orchard would certainly prove a source of profit in this section of country, as it has in many others. Consequently, I purchased a small farm for this specific purpose. I might here with propriety remark that up to this time I had scarcely given the subject a passing thought. Yet I was aware of the importance of informing myself in regard to the various points to be observed in order to succeed, or engage in it with confidence. I had lived too long not to be aware of the fallacy of going it blind in any branch of business. The first step taken was to subscribe for the *Genesee Farmer* (that great little reservoir of information), which every one ought to do that cultivates a rod of ground. I also obtained "Downing's Fruits and Fruit Trees of America," together with some other horticultural works, and commenced the study with energy. I found the information I desired so very plain and comprehensible that in one short season I thought myself sufficiently advanced to commence operations, which I did in the spring of 1857. During that season and the next I planted out one thousand trees, one-half of which were apple trees, and the other half peach, pear, plum and cherry trees; still prosecuting my studies, and, on turning another leaf, I found one very important item that I was not thoroughly posted in. This, however, I was aware of at the time, yet I was not aware of its importance. It was in regard to varieties best suited to our soil and climate. I left the selection to some extent to my nurseryman, and I am now satisfied that I have too many varieties, and I fear some of them are unsuited to the object aimed at. Yet this error, if one, will not set me back very much, as I have also learned something about grafting—as much as to say I intend to put new tops on all my trees that I am not pleased with.

The most of my trees are just now coming into bearing, and promise well. I had some very nice specimens of apples, peaches and pears last summer, notwithstanding the unprecedented drouth, which injured nearly all the fruit in this country. I think I have been very successful. I have not lost two per cent. of the trees planted, and so far I am well pleased with my success.

During this period of three or four years my garden has not been entirely neglected in the way of supplying it with the necessary small fruits, such as strawberries, gooseberries, raspberries, blackberries, currants, grapes, etc., which also promise well. I

am now preparing to plant out one thousand more apple trees this spring, composed principally of three varieties, which I have selected with great care. These varieties originated and have been pretty well tested in Kentucky, and as regards size, beauty and flavor I think they will compare favorably with your best Northern varieties.

Our soil is mostly clay, with considerable limestone, and naturally well drained. I dig my holes in autumn or early winter, from four to five feet in diameter, two spades deep, and plant my trees in February and March. I prune severely when necessary while young, in order to form low and open heads. I cultivate my orchards the same as a field of corn, and confidently expect in due season to be amply rewarded for all my labor. I have a home market that I have never seen supplied with good fruit at remunerative prices, and, in addition to this, I have the advantages afforded by railroads and river to all distant markets.

And now, Messrs. Editors, have I done anything wrong, or do I expect too much? If desirable, you may hear from me again, though in broken doses, in regard to my further progress, which I am certain will result in one way or the other.

Stoney Lonesome, Warren Co., Ky. A. D. WEBB.

It is with pleasure that we receive from our correspondent the foregoing communication; and, if we may be allowed to judge of what may be the result of his enterprise from the facts he has communicated, we should certainly predict the fulfillment of his highest hopes.

With all due modesty, we must say we think he has commenced the intellectual part of his labors in the most praiseworthy manner.

"Broken doses," small doses, or allopathic doses, when sugar coated as well as this one, will always be *cordial*-ly received and not considered "bad to take."

FRUIT GROWERS' SOCIETY OF WESTERN N. Y.

(Continued from page 65 of February number.)

The best method of preserving fruits, so as in every way to prolong the period of consumption.

H. N. Langworthy, of Monroe Co., had in the fall taken Bartlett pears, and, after soldering tight into tin canisters, had placed them in the ice-house, deep in the ice. At the time when all other pears were coloring and maturing to perfection, mine were in the same condition as when put in. They ripened up well afterward, coloring finely, and acquired the true Bartlett flavor.

W. P. Townsend had tried wrapping up pears in paper and in woollen cloths, and putting in baskets under ice; but upon exposure to the air, the fruit kept in that way became discolored and proved to have lost its flavor.

P. Barry.—Pears, after maturity, continue to improve steadily toward perfection. This ripening process may be checked but not suspended, and if it remain suspended for any length of time, it can not be awakened. Hence the danger of placing long on ice. Fruit rooms should always be above ground, and should (like ice-houses) be built with double walls to preserve even temperature. In fruit rooms, the great object is coolness and dryness—the heat never above 40°, and the air dry. You can then allow the ripening process to go on very slowly, only just enough to preserve its vitality, and can considerably prolong the period of its consumption. In England, they never keep their fruits in cellars.

Mr. Townsend had, upon three occasions, tried Schooley's preservatory upon Bartlett pears, and kept them some time beyond the usual period of ripening, but always destroyed the flavor of the fruit.

W. B. Smith had kept early fruits in this way in an ice-house, and they looked well for a month or six weeks, but the taste was destroyed.

Dr. Spence differed from Mr. Barry as to the ripening being a vital process. Thinks it only a chemical process, and one which can be suspended for some time by a low temperature, and yet renewed and perfected.

L. B. Langworthy.—Cold is a preservative principle, antagonistic to decay—witness the frozen animals in Siberia. Fish, in the winter, become dormant in ice, and when put into water will again live. Agreed with Dr. Spence that the changes in the apple and other fruits are chemical, and that no principle except cold will preserve them without change. Apples will bear several degrees below freezing point without freezing their juices, and when brought out and exposed to the proper influences will ripen up well. Mr. L. referred to the suggestion of Mr. Bissell as to the keeping qualities of grapes, and the best method of keeping. Prefers something like the peach basket in which to pack them in layers, with paper between each layer, using great care that no broken or imperfect grapes are left on any bunches. Keeps grapes easily until May, by keeping the basket in a cool room as long as they can be without freezing, and then transfers to a dry cellar.

Dr. P. G. Tobey, of Monroe Co., exhibited some very fine grapes. Was accustomed to pick his Diana grapes about the first of November, and upon a warm, dry day if possible. Puts into paper boxes about 8 inches wide, 12 inches long, and 3 or 4 inches high, holding about 5 lbs. to the box. Carried these boxes same day into a dry cellar, with windows open. Had kept grapes for three years past with complete success until April. Grapes need an even temperature, and as low as possible without danger of freezing.

Dr. Sylvester—Grapes should be fully ripe when picked, and all bruised and imperfect berries removed from every bunch. If packed immediately and carefully, they will remain plump and not shrivel at all. Best to pick on a dry day, and, after removing all imperfect or bruised berries, pack in shallow boxes of wood or paper—not more than two layers in each box. Keep in a dry room, with as little variation in temperature as possible, until there is danger of freezing, and then put in cellar. Some of my neighbors keep their grapes very finely in stone jars, and preserve successfully as to plumpness and flavor of berry. If two layers of bunches are ever put into the same receptacle, we must put white paper between them—soft, unsized is best.

H. N. Langworthy—Grapes should be picked as soon as ripe, in order to keep well. The greener the stem of a bunch, the longer that bunch can be kept. A bunch with an unshrivelled, green stem never rots. Packs in peach baskets in turner's chips in layers, with sugar maple chips between, and last year kept grapes with stems green until April. For sending to the New York market, grapes should be put in single layers into paper boxes, and these boxes into cases. Had sent tons of them, and they all came out very fine. After picking, carry the grapes into a cool place at once, and keep the temperature as uniform as possible.

Mr. Hoag, of Niagara Co., spoke of the importance of uniform temperature and of packing so as not to bruise the grape.

Mr. Barber—We raise for market in our town more than thirty tons of grapes every year. Differed from Mr. Langworthy as to the green stems, because unless dried they are apt to mould. We always dry the stems and pack in boxes of from 6 to 12 pounds, with 2 or 3 layers of grapes in the box, and fill the boxes full so that they won't shuffle about and "mash." If the fruit grower uses light, well-ventilated rooms, it requires about two weeks to cure grapes for shipment to market. The fruit which is least thoroughly ripened when picked shrivels the most. In boxes exposed to the air, grapes shrivel more than after being packed for market. Grapes are not injured while hanging on the vines by apparently severe frosts. Would pick as soon as the stems are ripe—pack in paper boxes and put in larger wooden boxes, and they will be, and will stay, plump when sent to market.

Mr. La Rowe, of Steuben Co., spoke of Mr. McKay, of Bloomfield, packing his grapes into barrels, cut in two. Keeps them in these tubs until the stems shrivel; then assorts, and watches that there is no mildew. Keeps

them thus about four weeks, then puts them in paper boxes and sends to market. It is important never to allow vines to overbear, and thus you have compact bunches of large and showy berries. To put up in paper boxes of about five pounds each is the best way to keep grapes after the sweating process is through with. As to this process, grapes always sweat, and therefore the surer way is to cure well before putting into the paper boxes, or any other boxes for keeping.

SUBJECT III.

Can the Yellows in the peach be introduced by the importation of trees from infected districts?

H. N. LANGWORTHY thinks the yellows can be communicated by using a knife in budding that had previously been used upon an infected tree. A tree diseased from the yellows will ripen its fruit a month earlier than a healthy tree, but it will die the same year. It gives the leaves a yellowish appearance, and gum oozes from the branches.

L. B. LANGWORTHY thinks yellows is contagious. Knew of a case where five hundred fine, healthy peach trees were set out, were well cultivated and made a fine growth. In three different parts of this orchard, some trees were struck with the yellows, and around these parts there were circles of diseased trees. Knew of one person who desired to test this question, and inoculated a healthy tree with the virus, and killed it. I budded a tree once with wood from a tree with yellows, and I thus killed my tree.

Dr. SYLVESTER agreed with Mr. LANGWORTHY. DAVID THOMAS once received some trees from New Jersey which were diseased, but cut down and burned at once every tree which showed signs of the yellows. If this disease is allowed to extend in Western New York, it will be as fatal to our trees as it is in New Jersey, where one or two crops of peaches are all that the fruit-growers expect from a planting of the tree.

C. L. HOAG impressed upon members the importance of avoiding these yellows in Western New York, if possible. A friend of his had lost almost all his orchard by planting a diseased tree from the East.

CHAS. DOWNING has known the disease for twenty or thirty years, and believes it contagious. If a diseased tree remains, all the surrounding trees take the disease and die. The only way is to remove the diseased tree or trees, and whenever and wherever I see one I take it out. The disease can be carried by matter or "virus."

Mr. SHARP would warn people that many New Jersey trees are being sold here. Was fearful lest we become like New Jersey.

H. E. HOOKER knew of old orchards which were planted with trees brought from New Jersey, and which are this day good trees. Also have seen orchards planted with trees from the same locality, and *these* trees have had the yellows. Thinks it best to be cautious as to planting New Jersey trees. No conscientious nurseryman would be guilty of filling his orders with diseased trees, nor would he be implicated in sending to any farmer trees which would or might infect his standing orchards.

Dr. SYLVESTER remembered that in 1836 there was not in New Jersey one-tenth of the disease called "yellows" which there is at present. The New Jersey nurserymen send here for their peach pits to plant, and evidently think that the disease is not only contagious, but can be communicated by the pit.

Mr. DOWNING thought the same.

Mr. HOOKER stated that where New Jersey trees are sent South they do not have it.

Mr. BARRY's opinion was that yellows is not contagious but still would prefer not to buy trees from infected districts. Some persons think it is communicated by the blossom. The cure for the yellows seems to be a good fertile soil. The cause for it, I think, is a poor soil, impoverished by heavy cropping; and by keeping trees in such soil we can make it constitutional.

F. W. LAY, of Monroe Co., never saw a case of it in his town, and farmers raise large crops of peaches there. The best orchards in Greece came originally from New Jersey, fifteen or sixteen years ago; but have not seen it in trees brought later from the East.

Mr. BARRY—All the young peach orchards in New Jersey look as healthy as any of ours do, but when three or four years old they have the yellows. Nursery trees there do not have, or at least do not *show*, the yellows; but generally after bearing their second crop of peaches the New Jersey orchards all die. Still, in some parts even of New Jersey they are exempt from the disease.

SUBJECT IV.

Which is the best stock for the cherry, for general purposes, the Mazzard or the Mahaleb?

Mr. TOWNSEND thinks one advantage of cultivating the cherry tree upon Mahaleb stock, is that its wood becomes more dense and hardy. The growth of the tree is more vigorous and not as liable to burst the bark. In some varieties cracking and bleeding are prevented, and the tree grows more rapidly with the wood not as succulent—not as pithy as on Mazzard. Has trees 10 and 12 years old on Mahaleb, and they are producing good crops.

Mr. ELLWANGER would add that particularly upon a clayey soil, the Mahaleb stock is better than the Mazzard. Trees upon Mahaleb are less subject to bursting. Some kinds (as, for instance, the Black Tartarian cherry) must be worked exclusively upon Mahaleb, and others, such as Burr's Seedling, Black Hawk, Cleveland Bigarreau, May Bigarreau, etc., are much better so. As to the growth of the tree, etc., if worked *low* upon Mahaleb stock, the bud will not outgrow the stock; and if the tree be trained as "low standard," it is all the better. Let the branches come out low, and never prune the tree at all after the branches attain the size of one's thumb. Prune your trees while young and get them into the right shape. In fact, *all* trees should be shaped while young. Cherries worked upon Mahaleb grow more vigorously while young, yet they do not make as large trees.

CHAS. DOWNING has seen cherry trees upon Mahaleb stock which are eighteen inches in diameter, and thinks them better for northern and western parts of our country than Mazzard.

SUBJECT V.

The Northern Spy apple; what is the value of it as an orchard fruit?

Dr. BEADLE, of Canada—The Northern Spy has for two years fruited with us in Canada, and seems to promise very well—bearing fine fruit and plenty of it. It is *all* fine, large, well-colored fruit, and hangs well on the trees. This is quite a desideratum, especially where exposed, as we are, to high winds in autumn.

Mr. BARRY—When the Spy was first brought forward it was charged to be a very shy bearer, and to bear a large proportion of inferior fruit in the crop, but now we have had fifteen or sixteen years experience with the fruit and ought to be certain as to the real importance of the tree and the real value of the apple. Apples for market form an item of immense importance in our fruit-growing farms, and I believe the Northern Spy has improved every year in quantity and quality—becoming finer and finer every year. I find it is now the best of all our winter apples, and one which will always be found a valuable sort to plant.

Mr. SHARPE, fourteen years ago got some of the scions and grafted into the top of an old tree. After a while I became sort of discouraged waiting for the scions to bear, and directed a boy to bud them all over to pears. The pear buds failed, but that very year the tree bore four barrels of fine fruit, which kept nicely until the next April and May; and, Sir, I never ate an apple that had the flavor or the freshness which those Northern Spy apples had. This year that same tree bore five barrels of fruit, which sold readily at $1.50 per barrel, while other sorts at the same time brought only $1.00 per barrel. If any body gets discouraged waiting for their Spy trees to fruit, I would advise them to try budding them over to pears. (Laughter.)

Mr. BROOKS—In 1855, set out an orchard with 150 Spy trees in the 1,000 trees. Some neighbors said I had made a great mistake—that they had grafted over every Northern Spy tree they had planted. Now, this year my trees have fruited and fruited finely. If this fruit is one which we can carry into April and May with good flavor and in fine condition, it will cause me to say with my friend BISSELL (as to the important subject of having fine fresh fruit in the spring) that the area of human enjoyment is thereby greatly enlarged.

Mr. FISH, of Monroe Co., spoke of the Northern Spy being called by some persons a great humbug, because it would not bear fruit the first season after setting out. People are generally too impatient to have their trees bear very early. One of my neighbors of this temperament

who had set out quite a number, became discouraged last year and dug part of them up. This year those which were left standing have borne fully and finely of handsome fruit.

Mr. HOAG had seen the Roxbury Russet and Northern Spy in June in New York. It is a most splendid keeper. Cultivators can make it bear earlier by thorough pruning and checking the growth to wood. The fruit has never yet been over-praised. The pruning which I speak of should always be to make the tree very open and grow spreading, and thus give sun to the whole inside of the limbs and to every fruit.

W. B. SMITH had pursued this plan of thinning out the top very thoroughly, and this year has had trees produce five barrels of fruit to the tree.

Mr. BARBER—This "Northern Spy" originated in Ontario county, and the fruit was first tested there some forty years ago. It is a slow tree to come into bearing—often requiring six or seven years to produce. You can't get a bushel from a tree that is seven years old; but when it *does* pay, it pays. There are, however, localities where the crops can be hastened; for instance, upon the sunny sides of hills in warm, rich and deep soils. One of my neighbors has such trees in the centre of his orchard upon a sunny side-hill, and has had more profit from them for the past fifteen years than from any other trees in his orchard; and when he wants any more trees for profit he will plant Northern Spy. Other men in his neighborhood, whose trees are not in such favorable locations, are not as well pleased, and are grafting over their Northern Spy trees. There are some noticeable features about this variety. The trees need to be young and thrifty when planted, and you can not have good fruit upon them without extra care—keeping them well pruned and open, and not permitting them to over-bear. The trees need a dry, well-drained soil, rich, loose and deep, and good cultivation. The trees do not leave out too early, and consequently are not exposed to the dangers from late frosts from which some other varieties suffer. Apple buyers watch them closer at market than any other sort; but a spot upon an apple does not affect the whole apple. Even if it be half rotted, the other half of the apple is good and retains its true, sprightly flavor.

Dr. SYLVESTER stated that the Spy is extensively planted in Wayne county,, and in most places is very fine. The trees are slow in coming into bearing, but when they *do* bear, they produce fine, sound fruit. The tree needs thorough, judicious pruning and cultivation, and careful thinning out of the branches. Any person, with a dry, nice soil, who is willing to devote attention enough to the tree to keep it in good heart, will have fine crops of a delicate, nice apple, and an apple that keeps, and keeps well.

Mr. MOODY was a decided advocate for the Northern Spy. Many of his neighbors had planted it freely, and such as had not already grafted it over never will, for the trees are now bearing enormous crops. The tree needs proper pruning, and the top kept open, for it is inclined to grow compact and too much to shade the fruit. The not early leaving out of the tree in the spring is quite an important advantage, for late spring frosts will sometimes kill back all the trees in the orchard except Talman's Sweet and Northern Spy.

Mr. HOAG thought it a decidedly valuable tree if well treated. The fruit is of superior quality, and such fine fruit always pays for good treatment. It does well if you give it sun enough by open pruning. Apple dealers consider the Northern Spy the most valuable sort we have.

Mr. TOWNSEND stated that fifteen years ago his father grafted the Spy upon the tops of two old trees, and upon the sixth year from the graft they bore a crop of fine fruit. Has gathered nine bushels from those two trees. Picked the fruit upon a cool, dry day, assorted it carefully, headed up the barrels and did not meddle with them until the first of April, but found that fully three-fifths were totally decayed, and the balance which seemed fair were decayed in the centre. My trees suffer from dry rot. The Spy is my favorite apple for eating, but they decay rapidly. Fruit buyers dislike the blotches which it is apt to have upon the surface, and they say that they "won't buy those blight, fungus blotches." My trees are upon a soil which is heavy, but well drained.

Mr. BARRY was pleased to hear the opinions from gentlemen who have spoken, representing all varieties of soil and a circuit of a hundred miles or more; and, although they differ in details, the general verdict is that the Spy is a good apple. To be sure, it requires care, but no more than its ultimate value will justify. It requires a dry, warm soil and some pruning; but so do *all* trees from which we get such decided returns. The thinning out should be done very lightly. This tree bears fine fruit, and pays and pays well for good culture. The tardiness in coming into bearing is no objection, for the tree thus has time to become fully established and more sure for future years. The Spy bears enormous crops, and the fruit should not all be allowed to grow, or the limbs become thereby bent and the sap obstructed, while the ground becomes poor and the tree impoverished by the production and ripening of such over-heavy crops. After a heavy crop of fruit, not only the Spy, but *all* apple trees, should be well pruned and the ground restored by careful cultivation. The fungus, in certain localities, is due wholly to local causes, and is not a general thing. As to the keeping, much depends on the care in gathering, and upon the care used in assorting previous to packing. In my celiar the Northern Spy is keeping as well as any variety.

L. B. LANGWORTHY thinks he grafted the first tree with this variety in the county of Monroe, and has watched it closely. The tree needs pruning, and has tendency to over bear. The fruit has a very fine, juicy, spicy flavor, and holds this flavor longer than any other apple in the world; while, as to beauty, there is no handsomer fruit. If carefully looked to and well kept, there is no finer apple for the household. But, for transportation to distant markets, it has its faults. Dealers do not like them for shipment, because they are thin-skinned, tender, and liable to bruise.

Dr. SYLVESTER had found that his apples kept very much better by being sweated before being headed up in barrels. Never head up fruit while wet.

SUBJECT VI.

Is it advisable to plant in Western New York the White Doyenne pear for orchard purposes, in view of its present liability to crack and spot in certain localities.

S. B. GAVIT, of Wayne Co., would not recommend it generally in Western New York, although there are some localities where, with a sandy or gravelly soil, the Virgalieu (White Doyenne) seems to have done well.

Mr. SMITH, of Geneva, had noticed its success upon light soils, and had remarked that this year it was finer, even upon clayey soils, than ever before. Does not want to see finer fruit than some produced this past season.

Mr. SHARPE had set out in 1858 about a thousand White Doyenne trees near his house, and they were doing finely. Never saw a crack nor a spot upon the fruit.

Mr. MAXWELL thought that the disease affected the fruit worse upon old trees than upon young ones.

Mr. BARBER thought the best mode of cultivating the White Doyenne was to cut the trees close, and get up good strong shoots with large leaves, thus getting up a new action all through the tree, and more healthy fruit.

Mr. SMITH supposed the disease to depend very much upon some local cause.

Dr. SYLVESTER agreed with Mr. SMITH, for he had seen the fruit crack badly upon the west side of a hill, while on the east side, and not more than 100 rods off, the fruit was untouched and splendid. Thinks it can not be climate nor soil which causes the disease in a case like that.

Mr. TOWNSEND—Upon my own grounds the fruit cracks badly, while upon the premises of a near neighbor the crop is first rate. Thinks the cracking proceeds from an atmospheric cause, for the fruit on both standard and dwarf Doyenne trees suffers alike. It must be a current of air, carrying fungi to the fruit, for in my case it follows immediately a violent attack of pear blight. The fruit will be one day fair, and the next day with this fungus upon it.

Mr. SMITH liked the White Doyenne because it is a fine, hardy tree, and the fruit is one of the best market pears. It keeps easily, ripens up easily and well, and is popular. Thinks all really fine pears more apt to suffer from disease than the coarser fruits and coarser trees, which are hardier and resist disease better—but these coarser fruits are not as good.

Mr. HOOKER had found that of this variety very few were fit to ship,—not one in ten—and this seemed a good test as to whether it was advisable to plant the tree.

Mr. JACOBS has purchased a good deal of this fruit, and finds that it is better in and about Geneva and Canandaigua than here in Monroe county. New York dealers

buy quantities of good sized and perfect Doyennes from Ontario county. Pears with fungus upon them we dealers always throw out and refuse entirely. We only accept perfect specimens.

Mr. ELLWANGER stated that the White Doyenne always does well upon his own grounds; but as to the question under debate, would answer NO. There is no necessity for planting Doyennes when we have plenty of others equally, or about equally, good, which are not subject to this disease.

SUBJECT VII.

What is to be understood by the term a standard, and what by the term a dwarf, tree?

Mr. TOWNSEND remarked that there was a great misapprehension among tree planters as to these terms. Calls a standard tree a plant growing upon a seedling stock of a variety where the plants will when full grown make one of its own kind. Calls a dwarf a tree from a bud inserted into a plant which is analagous in species, but of a diminutive growth.

Several members spoke very briefly, and then

H. E. HOOKER thought the term "dwarfing" was applied to the working of a scion upon a stock which tended to produce diminutive growth, and thus tended to fruitfulness and to increased size of the fruit. In the pear, this effect was produced by working upon the quince as a stock. There are other terms which result from other causes; as, for instance, a tree of any species, or working, or size may be rendered "pyramidal" by suitable pruning. In the pear, we call a standard tree one which is worked upon the pear or standard stock. Working apple scions upon Paradise stocks induces a diminutive growth. Working cherry upon Mahaleb induces a growth not so much dwarfish, and I think there is some impropriety in the use of the term dwarf to that. Working plum upon the wild plum stock produces a tree somewhat dwarfish. Simply pruning a tree does not thereby render it a dwarf tree, because such pruning does not tend to the diminutive growth or increased fruitfulness I have spoken of.

Mr. BLOSS, of Monroe Co., understood by the term dwarf, a tree worked upon a shrub, or upon that which partakes of a shrub in its character; and thus the tree becomes divided in its character between the tree and the shrub.

Mr. ELLWANGER differed. Tall trees are called standards always and of old times, no matter how or on what they are grown. Dwarf means bushy, no matter what cause has rendered them bushy.

Dr. BRISTOL, of Livingston Co., on the other hand, thought that, for instance, in the pear, a dwarf means the tree worked upon the quince stock, and asked, "If a nurseryman gets an order for a hundred dwarf pear trees, what would he put up? Would it be merely large trees cut down low? or would it be, as I have said, trees from pear scions worked upon quince stocks?" Trees (in grounds) which are kept to produce samples of varieties of fruits are "specimen" trees, and are not necessarily standard trees.

Mr. BARBER thought we ought to have these arbitrary terms settled and made clear, so that all persons should understand the terms alike. A standard tree is a tree worked upon a similar stock, while a dwarf is a scion worked upon a similar variety or species of stock, but which is in fact a dissimilar stock. You may make a tree grow dwarfed by cultivation and pruning, even, as the Chinese dwarf the sturdy oak—but these are exceptions.

SUBJECT VIII.

What influence has the stock upon the graft in modifying or changing the quality of the fruit?

Mr. BROOKS thought that more attention should be paid to the manner in which trees were propagated, for we often see the same variety of apples, which, growing upon different trees, have not the same flavor. Certainly, the best scions are taken from vigorous trees, and the same rule will apply to stocks. The character of any stock and of any bud will perpetuate itself as well in plants as in animals.

After remarks from Messrs. ELLWANGER, BARBER and LANGWORTHY, who agreed that there was a strong analogy between vegetable and animal physiology, the further consideration was, on motion of J. VICK, postponed until next meeting, and members were requested to prepare themselves for the discussion.

SUBJECT IX.

In transplanting trees, is pruning the tops and roots of importance, and if so, under what circumstances?

Dr. BEADLE thought this an important matter.

Mr. BARBER—In taking up trees, we should take up all the roots we can. Injured roots should be examined, and the injured parts cut away. Where the roots are thus pruned clean, there are more small roots thrown out from the pruned roots than from roots left mangled. The top should be pruned to correspond, for the top of the tree is the demand and the root is the supply. Do not prune the top too much, for it can be so severely pruned as not to leave wood-buds enough to demand and draw up the sap from the roots.

Mr. HOOKER thought that other things, such as soil, manure, etc., were of more consequence. There is a wonderful power in nature to recuperate the strength of plants, and fruits have a strong power to adapt themselves to circumstances. It is astonishing how readily trees will adapt themselves to the place where they are situated. Has tried experiments, and the growth of the trees that were pruned was greater than of those not pruned, but the total top amounted to only about the same. As an abstract question, a great deal is to be said on both sides. Mr. HOVEY thinks the pruning should be done the year after transplanting—others think we should prune when we transplant. There are various ends to be served by pruning. If we want the plant to bear fruit immediately we prune in one way; we prune in another way to produce a bushy tree; in another for a pyramidal tree, and in another way to grow a large tree, etc.

Mr. HERENDEEN said that JOHN J. THOMAS once tried the experiment of these different modes of pruning the tops upon the same sort of tree, leaving the roots all alike and all growing under similar circumstances. Where not pruned at all, the trees made little if any growth. Where the tops were pruned moderately, the trees grew somewhat, sending out shoots five or six inches in length and looked decidedly better. Where the tops were pruned severely the trees grew thriftily.

Mr. BARRY suggested that these nurserymen's experiments at home were not upon trees which are like the trees which reach their customers, and we must not be guided implicitly by them, but would recommend that in all cases the tops should be reduced a good deal. We import trees from France, which reach us with the tops dry and shrivelled, and we always do prune them in, and these trees go on with their growth. The late A. J. DOWNING impressed upon tree-planters the importance of pruning the head of the tree. We all know that little trees will grow well, and the manner of pruning their branches depends upon circumstances; but, at any rate, all dry and dead roots, as well as all dry and dead branches, should be cut out.

Mr. BARBER—The roots should be placed in the earth, not in wads or bundles, but spread out as nearly as possible like they grew; and every dry or dead part or decayed portion of either a root or a branch should be removed under all circumstances.

Mr. HERENDEEN suggested that these fine fibres and wads of roots spoken of are almost always dead, and if we examine trees we shall find that all the new growth of the roots is from roots fully the size of a pipe-stem.

Mr. SHARPE spoke of transplanting dry yearling peach trees, and cutting off the whole top, leaving the stumps only twelve to twenty inches in height, and they all lived and grew.

Mr. LANGWORTHY remarked that injudicious pruning might damage trees and plants, but close, careful pruning when transplanting does not destroy trees.

After some further desultory discussion, the Society adjourned to meet in June at Syracuse.

The following are the officers elected for the ensuing year:

President—E. MOODY, of Lockport.

Vice-Presidents—J. J. THOMAS, Union Springs; W. B. SMITH, Syracuse; W. R. COPPOCK, Buffalo.

Secretary—C. P. BISSELL, Rochester.

Treasurer—W. P. TOWNSEND, Lockport.

Executive Committee—P. BARRY, Rochester; J. J. THOMAS, Union Springs; C. L. HOAG, Lockport; W. B. SMITH, Syracuse; JOSEPH FROST, Rochester.

AMERICAN SHADE TREES.

'It is difficult to conceive where can be found landscapes of more beauty than are exhibited in the rural districts of New England, among the farm houses. Here the traveler may pursue his winding way for half a day's ride, where every knoll and evergreen-wood opening presents some new type of cottage-devised ingenuity. At one point the native forest still lifts its lofty and wide-spreading top, as if all were the work of creation's dawn; now and then projecting cliffs, with here and there dark ravines and sparkling cascades. Around the bend comes to view the New England mansion of the last century, with its sides of sheathing, its rusticated corners, its massive window caps and cornices, and its heavy substantial balustrades, which is rendered even more attractive by its trees, shrubbery and flowers. The road-side leading each way is lined with transplanted forest trees of vigorous growth and rich foliage. The maple, the elm, the birch, the ash, the linden, the beach, and the black walnut alternately mingling their pendent branches. In passing along through fertile glades and well cultivated hills, sloping in every direction for miles, every house presenting some peculiarity of form or ornament, the traveler may observe the most simple kind and the slightly ornamental farm residence, but none appearing bleak and desolate for the want of nature's garniture; far from it. The forest and the nursery have both contributed of their treasures to beautify each chosen spot. By one may be seen, in near proximity, the venerable elm, the noble oak, and the tall pine; by another, the balsam, larch, and the hemlock; by another, balm of gilead, with its healthful odors, and the mountain ash, with its enduring scarlet berries; by another, the locust, the linden or the willow. Such a developement of rural beauty and simplicity is surely an evidence of a highly progressive state of agricultural prosperity.

THE MAPLE.

The maples are of sturdy growth, fine form and foliage, making them desirable as ornamental and shade trees. They delight in an open sandy loam, and are generally employed in forming avenues.

Two of the American maples not only flower, but mature their seeds during the spring months. These, the white maple and the red-flowering maple. The latter is the earliest tree, whose bloom announces the return of spring, the beautiful purple blossoms unfolding more than two weeks before the leaves. But by far the most interesting tree of this description is the sugar maple, by some called rock or hard maple. It is one of the finest shade trees, assuming when standing alone a regular and beautiful symetrical form. It is valuable both for its product of sugar and for its wood. A beautiful street and park tree.

THE LINDEN.

This tree is better known in this country by the name of basswood. It is a rapidly growing, handsome, upright and regular shaped tree, and much esteemed for planting in avenues and straight lines. When planted singly on a lawn or park, and allowed to develop itself fully on every side, the linden is one of the most beautiful of trees. Its head forms a fine pyramid of verdure, while its lower branches sweep the ground and curve upward in the most pleasing form. The pleasant odor of its flowers is an additional recommendation, as well as its free growth and handsome leaves. The flowers are brown, on long stalks, and are pendulons from the branches. The leaves are large and heart-shaped, finely cut on the margin, and terminated by a point at the extremity.

As an ornamental tree, the linden is well worth cultivating, as it ranks in the first class in point of magnitude, frequently attaining a height of eighty or ninety feet, and a trunk corresponding in circumference to such an atlitude. They thrive in any soil, and are well suited for avenues and lawns.

THE LOCUST.

The robinia, or as is more commonly called the pseud-acacia locust tree, seems happily adapted to ornamental planting. Whether as a single tree upon the grass, feathering to the ground, or as a standard in the shrubbery, towering above a monotonous mass of small evergreens, the acacia has great charms for us, and may justly be styled a graceful treee; and although its loose, light and pleasing foilage admits the light, and seems to harmonize so delightfully with a lawn or highly cultivated shrubbery; yet we should like much to see the acacia tree planted in the woods, in the fields, roadsides, everywhere where timber is an object of attention. It grows very rapidly in the early stages of its progress, so that in a few years, from seeds, plants of eight to ten feet high may be obtained. It has the merit also of encouraging the growth of grass.

There is a singular character about the suckers of this tree; they are rarely seen to appear on the lawn, but in the shrubbery frequently. They rise singly, not like the elm and other trees, in thick masses, choaking one another, but they start out of the ground at once with all the boldness and vigor of a healthy shoot from a powerful stool; and, in a sheltered situation, will grow the same year from twelve to fifteen feet long from these suckers, and grow in this vigorous way immediately under the shade of the parent and other large trees. There is, however, one great drawback to the cultivation of the locust as an ornamental tree, and that is, its dead limbs, caused by the borers.

THE HORSE-CHESTNUT.

The value of this tree consists mainly in the beauty of its abundant, precocious and beautiful foilage and flowers, qualities which bring it into great request as an ornamental tree, and it has been extensively cultivated for that purpose. The foliage of this tree appears very early in the spring, being very quickly followed by its flowers, which are a pink-white color, and almost cover the tree, making a very brilliant appearance.

The ordinary stature of the American horse-chestnut is ten or twelve feet, but sometimes it attains a height of from ten to thirty feet, and twelve to fifteen inches in diameter. It is easy of cultivation, but of rather slow growth, and makes a very pretty appearance either singly or in groups or rows.

THE BEECH,

With its dark, dense, glossy foliage, and wide-spreading branches, is truly a magnificent tree, and were it not so common, its appearance would be more generally appreciated. As a lawn tree, standing alone, it has few if any equals, and why it has not been more generally cultivated remains a question.

C. N. BEMENT.

Springside, N.Y.

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

[Written for the Genesee Farmer by various Correspondents.]

BAKED BEANS.—Few people, says the *Germantown Telegraph*, know the luxury of baked beans, simply because few cooks properly prepare them. Beans, generally, are not cooked half long enough. This is our method: Two quarts of middling sized white beans, two pounds of salt pork, and one spoonful of molasses. Pick the beans over carefully, wash, and add a gallon of boiling hot soft water; let them soak in it over night; in the morning put them in fresh water and boil gently till the skin is very tender and and about to break, adding a teaspoonful of saleratus. Take them up dry, and put them in your dish; stir in the molasses, gash the pork, and put it down in the dish, so as to have the beans cover all but the upper surface; turn in boiling water till the top is just covered; bake with a steady fire four or five hours. Watch them, and add more water from time to time as it dries away.

MINCE MEAT.—(*From an English correspondent.*) Take two pounds of good beef, free from skin and fat; stew it till tender in a small quantity of water. Then take one pound of raisins, well stoned; one pound of sultana raisins: two pounds of currants, washed and carefully picked; one pound of candied fruit peel, the rinds of two lemons and the rinds of four; two pounds of beef suet. The suet beef and fruit should be chopped separately. Pare and core a dozen large sound apples, chop fine, mix all the ingredients together with two pounds of raw sugar. Mince the whole very fine; pour on the gravy from the beef. Put into a jar, pour upon it half a pint of brandy, and it will be ready for use. If closely covered, it will keep good for several months. In using, it should be moistened, with a little sweet cider or wine.

TO ROAST BEEF.—Choose that which has a fine, smooth grain, rather fat, and that of a whitish color. The first three ribs are good—the surloin the best. Wipe it clean, but do not wash it. Put a little salt on it and place in an oven to bake; baste it often. It should supply its own grease. A piece of seven pounds should take about an hour, or an hour and a half, to roast, allowing that it is preferred a little rare. To make good gravy, pour off carefully the grease, stopping with a spoon any floating gravy. Then add a little water and boil, and pour over the roast or in a tureen, as desired. Horse-radish is considered the epicure's relish with roast beef. Some prefer mustard, or both.

TO MAKE SAVORY BALLS.—Mince any kind of cold meat very fine; add an equal quantity of bread crumbs; season with salt, pepper and sweet herbs; beat up two or three eggs; mix the whole in a mass and make up in balls. Bake them till they are nicely brown and serve them hot. They may be fried in butter.

SORE EYES.—A little alum boiled in a tea cup full of milk, and the curd used as a poultice, is excellent for inflammation of the eyes.

LUNCHEON CAKE.—Mix well together one teacupful of butter, and two cups of powdered sugar. Add the yolks of three eggs and one cup of milk, and one teaspoonful of cream tartar, or one teacup of sour milk. Sift to this enough flour to make it of such a consistency as will allow it to be poured into the baking tins. After this, add one-half teaspoonful of soda, previously mixed in one tablespoonful of warm water, and the whites of three eggs beaten to a stiff froth. A few currants or raisins added are an improvement. It may be seasoned with lemon or vanilla. Bake half an hour. You may look at it in ten minutes after putting in the oven.

JENNY LIND CAKE.—Beat well together one coffeecup of butter and one lb. of pulverized sugar. Add the yolks of six eggs and one cup of milk. Mix thoroughly. To four cups of flour add two teaspoonfuls of cream tartar, and sift gently over the cake, stirring all the time. Add one teaspoonful of soda dissolved in one tablespoonful of warm water. Mix it well. Stir in gently the whites of six eggs beaten to a stiff foam. You may flavor with lemon. Bake slowly. It should be put in the oven as soon as possible after putting in the soda and whites of eggs.

HOW TO COOK A BEEFSTEAK.—The following were the rules adopted by the celebrated "Beefsteak Club, started in England in 1784:

Pound well your meat until the fibres break;
Be sure that next you have, to broil the steak,
Good coal in plenty; nor a moment leave,
But turn it over this way and then that.
The lean should be quite rare—not so the fat.
The platter now and then the juice receive,
Put on your butter, place it on your meat,
Salt, pepper, turn it over, serve and eat.

TO RESTORE FADED PARASOLS.—Sponge the faded silk with warm water and soap, then rub them with a dry cloth, afterward iron them on the inside with a smoothing iron. If the silk be old it may be improved by smoking with spirits, in which case the ironing should be done on the right side; thin paper being spread over to prevent glazing.

BAKED APPLE DUMPLINGS.—Pare and core the apples, and cover each one with biscuit-dough or pastry. Have ready a tin basin with hot molasses and water—three parts water and one part molasses. Bake them about three-quarters of an hour.

TO MAKE YEAST.—One quart flour; one tablespoonful of sugar; do. salt. Boil six potatoes in three quarts of water till quite soft; strain them through a seive; when milk warm, add a pint of yeast to rise it.

CHEAP CAKE.—One tablespoonful of butter, one egg, one cup of sugar, one-half cup of buttermilk, one-half teaspoonful of soda, and flour enough to make a stiff batter. Flavor with lemon.

EASILY MADE SHORT-CAKE.—One tablespoonful of melted butter, one pint of sour milk, a good half spoonful of soda. Stir in flour enough to make a very stiff batter.

TO MAKE MUSTARD.—Boil some vinegar; take four teaspoonfuls of mustard, a half a spoonful of sugar, a little salt and butter; mix well.

Miscellaneous.

The Hog.

The following is an extract from a poetical report on Swine, delivered by J. C. Milne, Esq., editor of the *Fall River News*, at a recent Cattle Show:

We sing the *Hog*—not those in common styes,
But that which roam'd unpenn'd in Paradise,
And furnished—next to that "best gift" dear *Madam*,
An extra *spare rib* for old Father Adam.
But if you doubt, when Eden's garden fair,
Bloom'd fresh and lovely, that the Pig was there,
You'll certainly allow, (please don't forget,)
He went with Noah *in*, out of the wet.
Yet there are some, who this plain fact dispute,
And out of that old ark would crowd the brute?

Said my friend Dean to me, the other day,
(My friend, the Treasurer) in his *Tauntin'* way,
How can you prove, Sir, that in Noah's boat,
The hog was gathered with the sheep and goat?
Of that, quoth I, one can not be mistaken,
For wasn't it *then*, that Noah *saved his Bacon?*
And did he not though on the surging brine,
Have his *Ham* there whene'er he chose to dine?
Dean ceased to *bristle*—'llowed twas even so,
The "critter" figured at *that* Cattle Show.

O, much abused and much despised beast!
Men slight thee most who know thy merits least;
Who would make *light* of thee, should *try* thee, first;
Then with thy praise they'll inter-*lard* their verse.
Without thy presence at the festive board,
Tickling the palate of creation's lord,
In bake, or fry, or even in a stew,
Pray what could we, or our good housewives do?
Sore grief would sieze on many a bosom stout,
If by perchance the hog should once "step out;"
And Life become, 'mid all its varying scenes,
Like Sunday morning without *pork and beans!*

On beef and mutton Englishmen expand,
But pork 's the crowning glory of our land—
Pigs are true Patriots—in the Buckeye State
They die to make her Cincinnati great.
Pork to the Jew is every way unclean,
Howe'er prepared, with or without his bean.
Though Paul felt free from Moses here to swerve,
The Jew still deems it binding to observe;
We go with Paul—as every one supposes—
As for the *Jew*—why, he may go to—*Moses!*

"Punch" on the Condition of Agricultural Laborers.

A late number of the *London Punch* has an admirable and most expressive cartoon. On the one side is The Stable in which stand Mr. Punch and a comfortable landlord beside a beautiful and handsomely mounted horse. Landlord says: "Yes, Mr. Punch, Nice, clean, airy boxes, plenty of light, perfect drainage and ventilation. The best of food and water, and kind treatment. That's my plan." On the other side is The Cottage, with its miserable furniture, and its seven or eight tenants huddled together, Mr. Punch and the comfortable landlord peep in, and here is the word Mr. Punch puts in: "Your stable arrangements are excellent! Suppose you try something of the sort here." In another part we have the following inimitably cutting petition:

The Petition of the British Peasant to the British Landlord, Humbly Complaining, Showeth unto your Honor—

That Your Petitioner having ventured upon the liberty (for which he hopes to be pardoned) of having peeped into the Stables of Your Honor (but he solemnly declares, with no evil intentions, and he would not take an oat without leave) has perceived that if Thought, Sense and Kindness were ever manifested toward Animals, it is in your Honor's Stables aforesaid.

That the Residence in which your Honor humanely places your Horses, is well built, water-tight, and well ventilated, is excellently floored, and has an excellent supply of water, that its drainage is perfect, and its light cheerful, and that the creature that can not live contentedly therein must be a beast.

That the Arrangements for the health and comfort of your Honor's horses seem to your Petitioner perfect, and designed to make the Animals happy when at home, and fit when they come out to perform any amount of work which your Honor may call on them to do.

That (contrary to arrangements in your Petitioner's dwelling, begging pardon for mentioning such a place) Separate places are provided for your Honor's Horses, so that they may sleep apart, and are in no way detrimental to one another.

That your Petitioner, knowing the kindness of your Honor's nature, as shown by this provision, and by hundreds of other acts of your Honor's, not to speak of your Honor's Lady and the Young Ladies (all of whom he humbly wishes a Happy New Year, if he may be so bold,) takes the liberty to believe that your Honor can not know that your Petitioner's Cottage, on your Honor's estate, is badly built, is not drained, has no ventilation, has a rotten floor, and is so cold that in winter the only way your Petitioner and his family can keep bodies and souls together is by Huddling together, Adults, Children, Grown-up Lads and Girls, all together, in one wretched bedroom, out of which they come half poisoned by the foul air, not to offend your Honor's delicacy by saying anything more than that they are good for far less work than could otherwise be got out of them.

Your Petitioner, therefore, for himself, his wife, four grown-up children, and five little ones,

Humbly prayeth unto your Honor,
That you will be graciously pleased to Treat him like a Horse.

And your Petitioner will ever Pray and Work, etc., etc.

The Home Pursuits of Queen Victoria's Family.

At the sea-side residence of Queen Victoria, in the Isle of Wight, a large portion of the pleasure-grounds is appropriated to the young Prince and Princesses, who have each a flower and a vegetable garden, green-houses, hot-beds and forcing-frames, nurseries, tool houses, and even a carpenter's shop. Here the royal children pass hours of their time. Each is supplied with a set of tools marked with the name of the owner; and here they work with the enthusiasm of an amateur and the zeal of an Anglo-Saxon. There is no branch of gardening in which the royal children are not *de fait*. Moreover, on this juvenile property is a building, the ground floor of which is fitted up as a kitchen, with pantries, closets, dairy, larder—all complete in their arrangements; and here may be seen the young Princesses, arrayed *a la cuisiniere*, floured to the elbows, deep in the mysteries of pastry-making, like a rosy New England girl. Cooking the vegetables from their own gardens, preserving, pickling, baking—sometimes to partake among themselves, or to distribute to the poor of the neighborhood the results of their handiwork.

A Noble Horse.—Grant Thorburn says: "I once saw a horse, in the neighborhood of New York, drawing a load of coal, twelve hundred weight, in a cart. The lane was very narrow—the driver, some distance behind, was conversing with a neighbor. The horse, on a slow walk, came up to a little child sitting on his hind quarters in the middle of the road, gathering up dust with his little hands and making mountains out of mole hills. The horse stopped—he smelled of the child—there was no room to turn off. With his thick lips he gathered the frock between his teeth, lifted the child, laid him gently on the outside of the wheel track, and 'went on his way rejoicing.' And well might he rejoice—he had done a noble deed."

Jeremy Taylor says, if you are for pleasure, marry; if you prize rosy health, marry. A good wife is Heaven's last best gift to man—an angel of mercy—minister of graces innumerable—his gem of many virtues—his casket of jewels—her voice, his sweetest music—her smiles, his brightest day—her kiss, the guardian of innocence—her arms, the pale of his safety, the balm of his health, the balsam of his life—her industry, his surest wealth—her economy, his safest steward—her lips, his faithful counsellor—her bosom, the softest pillow of his cares—and her prayers, the ablest advocate of Heaven's blessings on his head.

The friends of the *Genesee Farmer* will be glad to hear that, notwithstanding the "troublous times" in which we live, it still retains its extensive circulation. We are more than ever determined to spare no labor to make it worthy of their continued support. We would add that it is not yet, by any means, too late to subscribe for this year. The *Farmer* is not a newspaper, and the two back numbers are as good and interesting now as when first published. We are now receiving over a hundred subscribers a day, and a little effort on the part of our friends would yet give us some thousands more readers. By referring to our list of Cash and Specific premiums on the last page, it will be seen that we desire to *pay* liberally all who are willing to aid us in this matter.

N. Y. State Agricultural Society.—At the Annual Meeting of this Society, held at Albany, Feb. 13–14, Geo. Geddes, of Syracuse, was elected President; the other officers of the Society same as last year. The place of holding the next Fair was left to the Executive Committee. At a meeting in the Society's Rooms, several interesting subjects were discussed; and at the request of the meeting, the Chairman, Mr. Conger, embodied the opinions expressed as follows:

1. *What is the most profitable breed of Sheep for Farmers in this State?*

The decision arrived at was that there is no one breed equally profitable for all sections of the State; but that the various breeds are adapted to different localities and soils, and that the question of profit for each locality is one to be decided by the practical skill and judgment of the breeder, and is mainly dependent on the condition of the markets for wool and mutton accessible to him.

2. *What is the best method of Feeding Cattle for market? embracing the following topics: At what age should feeding commence? What kind of food, and how prepared? The best age for selling? The whole to be considered with reference to the profit of the Farmer.*

It was agreed, that the feeding should commence from the period of *calf-hood*, and should be pursued in moderation and with system, so as to avoid occasional overfeeding or stinting, until the animal is ripe, it being understood that in certain localities reference being had to the price of hay, and the value of other products of the farm, it would not be profitable to continue this through the second winter, while in others it might be pursued until the animal is past four years of age—and also that, in the dairy regions of the State, the feeding of stock can not in any way be made to yield remuneratively, compared with that obtained from butter, cheese, etc.

3. *What class of Horses is most needed to answer the wants of the Farmer and the public generally, and by what system or mode of breeding can they be most readily obtained?*

Those best fitted for the farmer's use, are those directly or in the second degree, derived from the thorough-bred racing stock of this country and Great Britain.

Cash Prizes, Cash Prizes, Cash Prizes.—We would again call the attention of all our friends who are willing to extend the circulation of the *Farmer*, to our list of Cash Prizes on our last page.

The Markets.

In the first half of February, owing to unfavorable news from Europe, and a more liberal supply, the price of wheat and corn declined 2@4 cents per bushel. Recent advices from Europe, however, created an active demand for export, and wheat in New York has advanced 4@5 cents, and corn 3@4 cents per bushel. The *London Mark Lane Express* says:

"After successive monthly imports of 8,000,000 bushels, with only about 4,000,000 bushels in store at London, it seems but reasonable to expect that the present calm will soon cease, as town and country millers are forced to take most of their samples from foreign factors. The failure of the potato crop also begins to be more severely felt. Over and above these considerations, the political ferment visible all over Europe, and the significant fact that the French Government has already purchased 80,000 bushels of wheat at Marseilles for the War Department, show that the opening spring may bring, not only a reaction in trade, but a much higher range of prices."

The last quotations of American wheat in London are, red $1.80@$1.89; white $1.88@$1.98. Indian corn, white $1.14@$1.23; yellow $1.17@$1.26. American flour $7.20@$7.44; and extra $7.68@$8.16 per barrel.

The *Irish Farmers' Gazette*, (Dublin, Feb. 2,) says:

"The weather has been uncommonly fine during the week, more like May than January, and, of course, most favorable for pushing on farm work. Planting potatoes is going on, that operation in many places preceding every other description of spring seed-work. Grain markets have been dull, and prices generally lower. At our Corn Exchange, on Tuesday, trade was very dull, and wheat was 1½@3c. cheaper than on Friday. Oats also declined 6d. per barrel. The only article which maintained its value was prime malting barley, which is very scarce."

New York, Feb. 22.—The supply of Beeves is rather in excess of the demand. The cleaning out of neighboring distilleries, in accordance with a city ordinance, threw a large number of light, thin cattle on the market, whole droves of which were sold at $25 per head. The *average* price of beeves, for the week, was 7¾ cents—ranging from 5 to 10¾ cents: general selling price, 8@8¼ cents.

The receipts of live stock was, for the week ending

	Beeves.	Cows.	Veals.	Sheep and Lambs.	Swine.
Feb. 5,	4,091	112	370	7,425	8,672
Feb. 12,	3,665	83	361	8,437	5,392
Feb. 19	3,811	98	460	8,128	7,616

Weekly average of beeves for 1860,		4,360
" " " "	1859,	3,950
" " " "	1858,	3,670
" " " "	1857,	3,143

Of the beeves brought in this week, 552 came from New York, 947 from Illinois, 288 from Kentucky, 495 from Ohio, 860 from Indiana, 13 from Michigan, 338 from Iowa, 70 from Virginia, and 41 from Pennsylvania.

Milch cows are in light demand. Good veals are quoted at 6@6¼ cents. Sheep, 4¾@5 cents, live weight extra fat, 5¾ cents. Hogs are low for the season—5¼@5¾ cents, live weight, for corn fed, and 4¾@5 cents for still fed.

First-class draft horses were in good request at $200@250 each; second-class, $150@$175. Railroad and omnibus horses were freely purchased at $100@$115 per head. The market is very dull for fancy stock of all kinds.

Grain.—White Wheat, $1.40@$1.60; red, $1.15@$1.40. Corn, 65@70 cents. Rye, 65@69 cents. Barley in good demand at 70@80 cents. Oats, 35½@37½. Beans in good demand at $1.40@$1.55. Clover seed in fair demand at 7@7¼ cents per lb.

Butter—State, 14@20 cents; Ohio, 10@15 cents. Cheese—State, 7@10¾ cents; Ohio, 6@9¾ cents; English Dairy, Ohio, 8@10 cents; ditto, Connecticut, 10@12 cents. Lard dull at 9½@10 cents. Dressed Hogs, 6¼@7¾ cents. Potatoes firm, $1.50@$2.50 per barrel.

Rochester, Feb 22.—Best white Canada Wheat is nominally worth $1.35; Mediterranean, $1.03@$1.06. Corn, new, 40@45 cents; old, 50 cents. Oats, 25 cents. Rye, 58@65 cents. Buckwheat, 3 @40 cents. Beans, $0.75@$1. Clover seed, $4@$4.50. Timothy, $2@$2.75. Hay, $8@$12.

Dressed Hogs, $6.50@$6.75. Lard, 10@10¾ cents. Beef, $4@$5. Butter, 12@15 cents. Cheese, 8½@10 cents. Eggs, 10 cents per dozen. Potatoes, 40 cents per bushel. Chickens, 5 cents, Turkies, 10 cents.

Toronto, Feb. 20.—Fall Wheat, $1.10@$1.15; spring Wheat in good request at 85@94 cents. Barley, 55@57c. Peas in good demand at 50@54 cents. Oats, 27@28 cents. Pork, 5½@6 cents.

Flower and Vegetable Seeds.—We would direct the attention of those who wish choice flower and vegetable seeds, to the advertisement of James Vick, in this number of the *Farmer*. Mr. Vick is the horticultural editor of the *Rural New Yorker*, and has imported his seeds direct from the best houses in Europe.

NOTES ON THE WEATHER OF JANUARY, 1861—The month began with moderate winter weather, and so continued for ten days; then three days of cold weather; thence moderate, except on 22d and 23d, till its close. Snow has fallen very slowly; no sleighing till the 11th, which ended on the 16th, and returned again on the 24th, to the end, on small depth of snow and ice. The ground has not thawed any in the month.

The average heat of the first half was 22.3°; and of the second half, 24.6°; and of the month, 23.5°.

The average of these periods, for 24 years, was, respectively, 26.6°, 24.7°, and 25.5°; so that the first half was 4.3° below the mean, the second was at the mean, and the month 2° under the average.

The water fallen amounts to 2.476 inches.

In the last week of December, and the first half of January, the cold was severe over England, France, and other countries in Europe, while our temperature has been as near the average. In England, much snow had fallen, and roads were blocked up by it; rivers frozen, and skating also on the Seine, France. At the London Zoological Gardens, the large Nubian lion, some antelopes, birds and monkeys, have, after all due effort of prevention, perished from the cold.

Jan. 13th was a cold day here, being only 2 degrees; but in the eastern part of the State, New York city, over New England and northward, the thermometer was below zero; at Ogdensburg, 30° below; Albany, 18° below; New York, 5° below; Boston, 8 to 11° below; Montpelier, Vt., 40° below; and Saratoga, 32° below.

Jan. 24th, a great snow storm from the Atlantic westward over New England and to the middle of New York, and northward into Canada. Here we had considerable rain, with hail, and a little snow, but the succeeding cold made all solid, and fine sleighing. The eastern part of the Central, Hudson River, and Harlem Rail Roads, were encumbered with drifts, and the trains delayed. Great amount of snow has fallen this month in New England, and in much of Canada East and West. Very good sleighing, from Boston west through Albany, beyond our State, and over a wide tract north and south. A fine month for business. Pork in great quantities transported, whole hogs, to the eastward, while poultry abounded, and the cereals were plenty.

February began with the moderate weather of the preceding month, and so continued for a week. On the 7th, a remarkable change began, with snow through preceding night and this day; 18° in the morning, 3° at noon, and 12° below zero in evening, with high wind in the afternoon and on to midnight and to next day, which made the cold almost insufferable. On the 8th the temperature was 11° below, and 6° above at noon, and the coldest day having a mean of 1.3° below. Cold on the 9th, but warmer.

This was another cold moving eastward, and much severer at the east. At Albany, the cold was some hours later than here, and on the 8th was 28° below; at New York, 7° below, and at noon 9° below; very high wind at Baltimore, and great cold, and on to the north; at N. York, the vapor condensed so that the bay appeared as a smoking furnace; at Hartford, Ct., 24° below; at Boston, 20° below, and in some other places in Massachusetts, 40° below; at Utica, 35° below; Ogdensburgh, 38° below; at Watertown, 40° below; at Montreal, 32° below; Quebec, 30° below, and at Toronto, 10° below. At Chicago and that longitude, above zero and pleasant; so that the cause began eastward of Lake Michigan, and increased the cold eastward and northward. Several places in Michigan, little below zero.

The 10th to 12th warm; snow melted, and with rain produced the flood of our Genesee, an inundation at Buffalo, and many places west; also the flood at Albany, Troy, and many other places on the 12th. Great loss of property. The ice broke up and passed off at noon of the 12th from the city, and again at 5 P. M. from the south. Sleighing gone.

Feb.'8 will be remembered as the *Cold Friday of* late years, only rivaled and exceeded by the cold Friday, Jan. 19th, 1810. The suddenness of the change on the 8th at Rochester is given above; but at the east, the temperature was higher, and the change greater, and as sudden. Take the following:

At Boston, 2 P. M. of the 7th, temperature 43°, with rain; in the evening, snow and squalls, with violent N. W. wind; and at sunrise of the 8th, 18° below, and at the University, 19° below.

At Hanover, N. H., at 1 P. M., 7th, thermometer 37°; and at 7 A. M. of the 8th, at 32° below.

In these and many other places, the change was 40° in the course of a few hours.

Several persons were frozen to death in places distant from each other, and many others came near perishing. So extreme was the cold, in the midst of the moderate weather of the half month.

Whether the peach buds have been injured by the late cold is yet to be ascertained. We may hope that the regular cool weather had prepared them for this sudden change.

Inquiries and Answers.

MARKETS FOR VEGETABLES.—(A. S., *North Shore, N.Y.*) We are not prepared to say what city in the United States is the best market for vegetables.

There are many things for a gardener to take into account in locating himself, besides the prices he will receive for his productions.

As a general rule, the prices are governed by the cost of production, and afford nothing reliable upon which to base an idea of profits.

The cities of Chicago and St. Louis probably have as short a supply of vegetables as any others, and hold out as many inducements to engage in the business; St. Louis, especially, we should regard as a good point.

BASSWOOD BARK.—(W. L. P., *Millersburg, Pa.*) Basswood bark is prepared for use in budding by stripping it from the tree in the month of June, when the sap is flowing freely, and immersing it in water for a fortnight or so, when the inner bark may be easily peeled off. It can then be hung up and dried, and afterwards put away for use.

WEEPING ASH.—(R. DE S., sr., *Athens Co., Ohio.*) The Weeping Ash can be obtained at the principal nursery establishments in the country.

PRUNING DWARF PEAR TREES.—(R. P., *Clinton, C. W.*) We would refer you to the *Rural Annual* of 1858.

Cracking of Cherry Trees.—Can you or some of your correspondents tell us, through the *Farmer*, what ails the the Cherry Trees? They grow very thrifty for five or six years, and then crack on the south-west side. Some say hit the trees. If that will prevent it, please state at what time it is best to do it, and on which side of the tree?—O. B., *Clear Creek, C. W.*

From the accumulated observation on this subject, there is every reason to believe that the disease spoken of is caused by the extremes of temperature, to which the bark of the trees is suddenly exposed; the bursting usually takes place on the southwest side, because it is when the sun is in this relative position to the tree, that it throws its most powerful rays, not only upon the trunk of the tree, but also upon the bright white snow at its base, which is again reflected back against the bark, making it to receive nearly double the amount of heat that it would get from direct radiation only.

This condition of things occurs frequently, and in mid-winter, when all parts of the tree are dormant, and contracted to their smallest compass by cold; the cells of the tree, unable to resist this repeated expansion and contraction are ruptured, and in the spring, when the sap begins to flow, arriving at this point, and unable longer to pass in its usual channels or ducts, whose walls are torn open, forming here one great cell, it collects in a large quantity and oozes through the bark.

If this theory is correct, it would follow that a remedy would be found by shading the body of the tree during winter from the sun—as good a way as any other to do this would perhaps be to bind straw about the trunk. Trees grown in the pyramidal style, or having their branches start out close from the ground, thereby shading the trunk, are now being planted to considerable extent in some parts of Canada and the Western States, by those who have had most experience with this troublesome evil. Slitting the bark we have no reason to think would be of any advantage for such a case as here mentioned.

Dwarf Apples.—(R. W., *Euphemia.*) The stocks now commonly used for dwarfing the apple are the *Paradise* and the *Doucain*—varieties of small growth, and which are imported into this country from Europe.

Guano on Wheat.—(W. Gillmor, *Ohio.*) It is best to apply the guano at the time of seeding, in the fall. Two hundred lbs. per acre is the usual quantity. If applied as a top-dressing in the spring, the earlier the better.

Hogs.—Can any of your correspondents tell me to what breed or breeds of hogs those generally known as the "Chester White" owe their origin? Also, who will have any young pigs of this breed for sale in the spring, or if there are any of them owned in New York State, near the Niagara frontier. Also, where can I get a cross between a pure Ryfield sow and a Suffolk boar, as I would like to bring in something new from one or the other of these breeds.—A Subscriber, *Niagara, C. W.*

"Would the Common Thorn do for a hedge? and when may the haws be sown?" Such is an inquiry in your January number. I also will make an inquiry: Will A. F. define what he means by "the Common Thorn?" I have been long engaged in growing plants of the Thorn species, but of all the varieties, I know of none of that name.—W. B., *Skaneateles, N. Y.*

Machine for Sawing Fire-wood.—Which is the best machine for sawing fire-wood, that does not cost too much, say about $60?—Jas. Vickers, *Cass, Ohio.*

Locust Trees.—I beg to be informed, in the next number of the *Farmer*, whether the Locust timber that was so much cultivated in Western New York some twenty years ago, is what is denominated the genuine Yellow Locust, (1) and whether it is the most durable and valuable of the Locust species (2). Some thirty years ago, while traveling in the vicinity of Hagerstown, Md., I observed a species of Locust growing spontaneously in the forests and woodlands of every farm, and until recently have supposed it to be the same species grown principally for shade and ornament in Western New York. That in Maryland was highly valued for durability, and sold readily at a high price. It seemed there to grow thriftily, and tall and slim, with no limbs on the trunk near the ground, and much resembled that grown around Rochester twenty years ago. I am desirous to supply a destitute farm in the vicinity of Penn Yan with more timber, by transplanting and filling up a very much thinned out wood-lot, as very many other farmers in Western New York should do, and for that purpose prefer the locust to any other, if I can get the right kind—such as I referred to in Maryland.

I have resided in North-western Ohio for the last thirty years, and there devoted attention to the cultivation of the Locust, the seed of which I obtained thirty years ago from trees growing in Cayuga Co., N. Y.; all of which have since been destroyed by an insect—the same, I suppose, that destroyed most of the trees in Ohio, called then the borer. That insect has ceased its destruction in Ohio, as also here; hence, I think the timber can now be reared in this latitude to great advantage, to supply the growing scarcity of timber on most farms. Any information you can communicate to your patrons in relation to regenerating their thinned wood-lots, will be a matter to them of eminent interest.—W. W. C., *Bluff Point, Yates Co., N. Y.*

(1). The Locust that has been generally grown in Western New York is the genuine Yellow Locust, or *Robinia pseud-acacia.*

(2). It is the most valuable of all.

We should be pleased to receive the opinions of those on this subject who have had experience in the cultivation of this tree.

Bots.—I have just lost a valuable mare with bots. This is to beg that some of your correspondents will answer the following through your paper. The mare was turned out of the stable in the morning to the fields, as usual, without anything of disease being observed; she came back to the house at 11 o'clock A. M., laying down, sometimes rolling over, evidently in great pain; her ears were warm as usual; sometimes would throw her head around to her side. I made sage tea, and gave her about a quart; waited about an hour; she seemed scarcely better, and I gave her about three pints more of the tea. At night she seemed slightly better, but would still lie down and groan. At dark, I bled her in the mouth. Next morning she was up and seemed free of pain, but appeared stupid, and refused to eat and drink. She continued so until one o'clock, and died. I opened her, and found nearly half a pint of bots in her maw; found no place where they had eaten through. About the kidneys she was dreadfully inflamed; also, some of the small bowels. Was it the bots or the inflammation that killed her? If the latter, could sage tea have produced it? I do not ask for a cure for the bots; we have abundance of cures published, but we want a preventive. Hickory ashes kept in their troughs in winter and spring is recommended for that purpose, but I imagine that they would carry away too much of the mucus of the stomach and bowels, and injure digestion. There is also an opinion prevailing that the nits on the horse get into the stomach and turn into bots, and that scraping them off would prevent them. But what is the evidence that they change to bots, except the instinctive hate that the horse has for the fly that deposits the nits? At what time of year are the bots most injurious; would it be proper at that time to give the horse something to make them let go the maw, and then purge them to carry them off?—T. L., *Greenup Co., Ky., Feb. 6*, 1861.

Italian Bees.—Can you give any information concerning Italian Bees? What is their superiority over the ordinary Honey Bee? What is the price per swarm, and where can they be obtained? Any other information concerning them will be gratefully received.—C. Wm. Rose.

WHORTLEBERRIES.—I want you at your earliest convenience to bring out in the *Genesee Farmer* all you know or can profitably say about the Whortleberry Bush. You have not, to my knowledge, ever taken the subject in hand, neither has BARRY; COLE names it only. Patent Office reports, as far as I have examined, are silent; no one appears to think it worth his notice. I believe the high and low bush might succeed well here. Why not? If you know any good reason to think it will not, please to so state. In the cold and barren regions of New England, this bush produces more fruit per acre than the Bramble, Strawberry or Raspberry. I have not seen a Whortleberry for the last twenty years, but am told they appear in the Cincinnati market every year. In Vermont, the low bush variety prefers the dryest land and most elevated regions, while the giant bush chooses the wet and marshy lands, near lakes. Is the vulgar opinion that a Whortleberry patch must be burned over every few years well or ill-founded? Should the land on which the bushes are to be set be plowed? What exposure will be best, and what else is essential for the successful cultivation of this plant?—F. B., *Patriot, Ind.*

The productiveness of the plants must depend greatly on the vigorous growth they make in the early stages of their existence. Clean cultivation should also be given them. If there is any necessity for burning Whortleberry grounds every few years, it must be that the bushes are fruitless or comparatively so after a time, and the burning cleans the ground to allow a young crop to succeed; this, which is probably the case, would be provided for in cultivation, by making new plantations as often as necessary. These remarks apply to the low bush variety only, as we doubt whether it would be practicable to grow successfully the high bush kind, which seems to require so much shade and moisture.

We shall be pleased to hear from any of our readers who have information on this subject,

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Will it pay to feed potatoes to milch cows when they are worth 37½ cents per bushel?(*a*) I have five or six barrels of wood-ashes, which I wish to maka the best of. Will it pay to sow them on wheat that was sown last fall, or will it pay better to put a handful or two in each hill of corn when planting in the spring?(*b*)—H. B. B., *Bremen, Ohio.*

(*a*)Whether it will pay to feed potatoes at the price named, depends on the price of other food. One bushel of shelled corn contains as much nutritive matter as three or four bushels of potatoes. It is true that we must allow something for the health-giving properties of an occasional mess of succulent food at this season of the year; but we question if this is sufficiently great to counterbalance the extra cost of the food.

(*b*)We should prefer to put the ashes on the corn, say a handful scattered round the hill when the plants are two or three inches out of the ground.

MACHINE FOR MILKING COWS.—I am in the habit of sending the *Genesee Farmer* to friends in Great Britain, and I have a letter from one of them who keeps a dairy of 90 cows, asking for information about the "Cow Milker,"—its capabilities, price, etc.—H. A. JOHNSON.

We have seen the machine alluded to; but know nothing of its capabilities. If any of our readers have tried it, we should be pleased to hear from them.

FRUIT CULTURE IN THE WEST.—(JOHN HENSHAW, *Ohio.*) You will find two valuable treatises on this subject in the *Rural Annual* for 1859, one written by the late A. H. ERNST, of Cincinnati, and the other by M. B. BATEHAM, of Columbus, Ohio. If you have not the work, we will forward it you by mail on receipt of the price, 25 cents.

I feel very much the need of some good farm implements, but do not know where to get them, or the price. I have thought that it would be well for some of us if we could see a list of such things in the *Farmer*. I very much want a good hand corn-sheller, and also a wheel cultivator. I have the Japan Apple-pie Melon, Hubbard Squash, and Honolulu Nectarine. The seed came from New York; but as I do not know that they are genuine, I would like to see a description in the *Farmer*.—FRANCIS H. WILLIAMS, *Springville, Iowa.*

RATS—I wish to know the most effectual method of destroying rats. I can get along with mice and meadow moles, by keeping on hand a good susply of cats and traps; but not so with rats. They dig under my cellar walls, and keep out of puppy's reach. I fill up their holes with stones, and pound them in with a stone-hammer, but they soon dig around them. I endeavor to remove all their hiding places, out of doors and in doors. Will a good cement bottom in a cellar stop them out? If it will, how should it be made?—*Gorham.*

STABLE FLOORS.—I wish to know how to make the best kind of floor for stabling horses and cattle—whether plank or ground. If a ground floor is best, I wish to know how to make it. If the ground is left in its natural state, the horses will soon stamp and paw it into holes, and it will be very uneven.—N. S.

HYDRAULIC RAM.—I wish information in regard to a hydraulic ram. What would be the cost of one with a two-inch pipe, 150 feet long; where can they be obtained; and how much water would such a one afford, etc., etc.? —R. A. SWINNEY, *Boston, Ind.*

BLACK ANTS IN BEE-HIVES.—Will some of your readers favor me, through your paper, with a bit of information as to the best way of keeping black ants from bees. They are very troublesome here.—E. FOLSOM, *Harmony, Me.*

FIELD PEAS.—I would like to have the opinions of your correspondents as to the best kind of field peas, and the best method of cultivation and harvesting. Is early or late sowing the best?—N. S., *Ontario Co., N. Y.*

LIME.—I would like to see an article in the *Genesee Farmer* on burning lime, and its application as manure; quantity per acre, and whether it should be used in the fresh state.—J. N., *Enon, Pa.*

TAN-BARK AS MANURE.—(JNO. HENNINGER, *Pa.*) Spent tan-bark is of little or no value as a manure.

Special Notices.

COUGHS—The sudden changes of our climate are sources of *Pulmonary, Bronchial and Asthmatic Affections.* Experience having proved that simple remedies often act speedily and certainly when taken in the early stages of the disease, recourse should at once be had to "*Brown's Bronchial Troches,*" or Lozenges, let the Cold, Cough, or Irritation of the Throat be ever so slight, as by this precaution a more serious attack may be effectually warded off. Public Speakers and Singers will find them effectual for clearing and strengthening the voice. See advertisement.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or $2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in *every State and Territory, and in all the British Provinces.* (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

We will also insert a few "Special Notices," if appropriate to our columns, at fifty cents a line.

BRINCKLE'S ORANGE RASPBERRY PLANTS—$1 per dozen; $5 per 100; $40 per 1,000. Wholesale purchasers furnished at low rates. J. KNOX, Box 155, Pittsburgh, Pa.

J. M. THORBURN & CO.'S DESCRIPTIVE CATALOGUE OF Vegetable and Agricultural Seeds for 1861,

IS now ready for mailing to all applicants enclosing a postage stamp.

N. B.—We have now in the press our Spring Catalogue of Hybrid French Gladiolus, &c., and a complete List of all the novelties in the floral line. J. M. THORBURN & CO.,
15 JOHN STREET, NEW YORK.
Feb —1t

HUBBARD SQUASH.

I HAVE received from the Massachusetts Horticultural Society, a piece of Silver Plate, as **Original Introducer** of this celebrated Squash. A package of about 50 seeds, of the purest quality grown, *warranted* to reach each purchaser, 15 cents; four packages, 50 cents, JAMES J. H. GREGORY.
Marblehead, Mass.
March—2t.

"FAMILY NEWSPAPER."

MRS. HANKINS' Mammoth Pictorial is in its Sixth Volume, and has 300,000 readers. Full of Engravings and Fashion Plates. Largest, nicest and best in the World, for **75 cents** a year. AGENTS Wanted. Ladies, Teachers, Clergymen or Post Masters. Specimen copies and Terms to Agents mailed gratis.
March.—6. Address HANKINS & CO. New York.

FANCY FOWLS.—I have on hand, for sale, White Dorkings, Black Spanish, Black and Golden Spangled Polands and Hamburghs, Black African, White, Red and Golden Spangled Bantams, Madagascar Rabbits and four varieties of Geese, etc. For farther information address, W. A. GOODING,
March—10t* Lockport, Illinois.

100 VARIETIES OF NATIVE GRAPE—Roots strong and cheap. Fruit and Ornamental Trees, Flowers, Shrubs, Roses, and Small Fruits. Catalogues mailed free to all applicants with a beautiful cut of the Concord Grape. Address
1t. W. C. LOOMIS, Lowell, Oneida Co., N. Y.

NANSEMOND SWEET POTATOES FOR SEED—A superior article. $2 a bushel; a barrel, 2¾ bushels, $5. *Plants* at lowest rates, in May and June. Send for our new Circular. Our Nansemonds have given fine satisfaction for many years.
1t. C. B. MURRAY Foster's Crossings, Warren Co., Ohio.

$5.00 PER DAY!

AGENTS WANTED to engage in an honorable and respectable business, which pays $3 to $5 per day. Send stamp for full particulars. Address NATIONAL AGENCY, Milan, Ohio.

New Cuyahoga Grapes.

SEND a stamp for the Illustrated and Descriptive Catalogue of New Grapes, by C. P. BISSELL & SALTER,
Feb.—1t. Rochester, N. Y.

AGENTS WANTED,

IN all parts of the United States, to sell good BOOKS. For terms, &c., address, FRED'K W. PRINCE,
Feb.—2t. 25 Park Row, New York.

COINS, MEDALS, COINS.—The entire CURTIS Collection of rare and valuable Gold, Silver, Copper and Bronze Coins and Medals of all Nations is now selling at the low price of **$1** each For circular address JOHN K. CURTIS, 88 Bleecker st., New York.

500 AGENTS WANTED—To sell Scofield's Variety Stationery Envelopes. Retail price 25 cents, with a gift of Jewelry in every one. For terms, &c., address, with stamp,
March—1t. C. W. SCOFIELD, Bookseller, Geneva, N. Y.

ANYBODY can mend Rubber Boots and Shoes, if they *know how*, at a trifling expense. Full particulars by a *Practical Workman* sent for 25 cents. ☞ *It will Pay.* Enclose price and address "Dickinson's Shoestore," Branchport, N. Y. 1t*

WILSON'S ALBANY STRAWBERRY PLANTS—25 cents per dozen; $1.00 per 100; $5.00 per 1,000.
1t J. KNOX, Box 155, Pittsburgh, Pa.

LAWTON BLACKBERRIES—A fine lot, from root cuttings, $1 per dozen, $4 per 100. Root cuttings by mail, post paid, 25 for $1. Feb.—2t. H. B. LUM, Sandusky, Ohio.

NEW ROCHELLE BLACKBERRY—$1 per dozen; $5 per 100; $40 per 1,000. J. KNOX, Box 155, Pittsburgh, Pa.

FILMORE STRAWBERRY PLANTS—50 cents per dozen; $2.50 per 100; $15.00 per 1,000. J. KNOX, Pittsburgh, Pa.

Books for Farmers and Fruit Growers.

THE following works on Agriculture, Horticulture, &c., may be obtained at the Office of the GENESEE FARMER:

American Florist's Guide	75	Quimby's Mysteries of Bee-keeping Explained	1 00
Browne's Bird Fancier	25 & 50	Rabbit Fancier	25 & 50
Everybody's Lawyer	$1 & 1 25	Richardson on the Hog	25
Every Lady her own Flower Gardener	50	Do. Domestic Fowls	25
Farm Drainage, (H. F. French)	1 00	Do. on the Dog	25
Genesee Farmer (bound volumes) each	1 00	Rural Annual and Hort. Directory for 1861	25
Liebig's Animal Chemistry	25	(First five vols. do., 1856-7-8-9 and 60, sent for	1 00
Liebig on Food, &c.	25	Smith's Landscape Gard'g	1 25
Do. Relations of Chemistry to Agriculture	25	Rodgers' Scientific Agriculture	75
Miner's Bee-keeper's Manual	1 00	Rural Poetry of the English Language, (a beautiful book for a present)	3 00
Modern Cookery, by Miss Acton and Mrs. S. J. Hale	1 00	The Rose Culturist	25 & 50
Nash's Practical Horse Farrier	50	The Horse and his Diseases	1 00
		Wilson on Flax	25

☞ Any of the above named works will be forwarded by mail, post-paid, on receipt of the price specified.
Address **JOSEPH HARRIS**, Rochester, N. Y.

WM. PATERSON'S Improved Superphosphate of Lime.

MANUFACTURED and for sale at Division Street Wharf, Newark, N. J., and by the Manufacturer's Agents in this and other States.

It is put up in bags of 100 and 150 lbs. each, and marked with the Maker's name, to whom orders sent with cash, or satisfactory references here or in New York, will be promptly executed.

The aforesaid article consists principally of Charred Bones, dissolved by Sulphuric Acid, with a large proportion of Peruvian Guano and other important ingredients.

The largely increased sales for the last seven years, with the unsolicited reports of Agents, and premiums awarded by State and other Agricultural exhibitions in past years, attest satisfactorily its remunerative results, being found more permanent in its effects than Peruvian Guano, and consequently more profitable.

It has been the aim of the manufacturer to make this manure what it is avowed to be, and the public may rest assured that it will continue to be uniform in quality and profitable to the buyer.

Circulars, with particular instructions for use, will be sent by mail when requested or on application to his agents.
March—7t. WM PATERSON,

DELAWARE GRAPE VINES.

A FEW hundred extra Delaware Layers, propagated from the original vines at Frenchtown, N. J. Their growth with us last summer, WAS TWICE AS MUCH AS LAYERS OBTAIN FROM OTHER PARTIES. They appear to be more hardy—never having been frozen. We gathered from one vine near Frenchtown, last fall, 564 bunches of fruit. The vine was only three years planted.

First quality of Vines (Layers)			$2 50 each;	$25 00 per doz.
Second	"	"	1.75 "	18.00 "
Third	"	"	1.00 "	10.00 "
Concord Vines, 1 year old, (Layers)			50 "	5 00 "
Extra	"	2 "	1.00 "	10.00 "

Two year old cuttings, extra vines, $25.00 per hundred.
Hartford Prolific (Layers), extra, $25.00 per hundred.
Diana, Rebecca, Allen's Hybrid, Taylor, &c., &c. Send two three cent stamps and get our Illustrated Descriptive Catalogue of hardy Native Grape Vines.
Address WM. PERRY & SON,
March—1t Bridgeport, Conn.

NORTH RIVER AGRICULTURAL WAREHOUSE AND SEED STORE,

Agricultural and Horticultural Implements,

FIELD, FLOWER, & GARDEN SEEDS, from the most reliable growers in Europe and America.

ALL GOODS WARRANTED AS REPRESENTED.

GRIFFING BROTHER & CO.

60 Courtlandt St., New York City.

The Great Austin Shaker Seedling Strawberry.

THE Price of this monstrous variety will be reduced this spring to $2 per dozen, or $10 per hundred, delivered in rotation as ordered, after the first of April.

The Great Austin is believed to be the most productive and average the largest in size of any other strawberry in cultivation. Orders addressed to either CHAUNCY MILLER, Shaker Trustee, Albany, N. Y., or WM. S. CARPENTER, 468 Pearl street, New York city. March—2t.

Fine Imported Flower Seeds,

FOR SALE BY JAMES VICK,

Rochester, N. Y.

I HAVE this day (Feb. 19th) received a fresh invoice of *FINE FLOWER AND VEGETABLE SEEDS* from Europe, embracing some of the finest varieties ever offered to the lovers of flowers. Many are new and rare. Among them are the following:

STOCKS—Ten Week—New Largest Flowering, 8 colors, separate or mixed—Emperor, largest flowering. Brompton, (Winter)—Sulphur Yellow, new.

ASTERS—Globe Flowered; Dwarf Pyramidal Boquet Flowered: Truffaut's Perfected, 18 colors, either separate or mixed; La Superb; New Crown, 4 varieties, separate colors, or mixed; Ranunculus Flowered; Chrysanthemum Flowered, 9 colors, separate or mixed: New Giant Emperor.

BALSAMS—Rose Flowered, 12 colors. separate or mixed.

LARKSPUR—Double Dwarf Hyacinth Flowered; Stock Flowered.

HOLLYHOCKS—From Show Flowers.

MARVEL OF PERU—Eight varieties.

SWEET PEAS—Seven varieties, separate colors.

PICOTEES—From Choice Flowers.

ANTIRRHINUM—Flower Alba; Striped; Brilliant; Firefly; Galathe—each color separate or mixed.

CONVOLVULUS MINOR—Tri-color; Splendens.

CONVOLVULUS MAJOR—Purpurea.

GAILLARDIA—Picta; Josephus; Alba Marginata.

GODETIA—Amoena; Wildenowii.

PHLOX DRUMMONDII—Scarlet; Leopoldi; Blue, white eye; Alba Oculata, (pure white, purple eye.) All of these separate, or mixed.

PORTULACCA—Alba Striata; Caryophyloides, rose, striped with deep carmine.

PANSIES—I quality; II quality; from red flowers; from striped flowers: from light flowers, violet bordered.

WALL FLOWER—Ten varieties

SALPIGLOSSIS—Variabilis, largest flower; Dwarf, fine.

ALSO,—Calliopsis, Dianthus Chinensis; Econitum Lycoctonum; Aquilegia, double; Bartonia Aurea; Campanula: Cobea Scandens, climber; Sweet William, best seed: Petunia, 8 varieties; Zinnia Elegans, many varieties.

EVERLASTING FLOWERS.

HELICHRYSUM, several varieties and colors; ACROCLINIUM, Roseum and Alba; AMARANTHUS, Bi-color and Tri-color; GLOBE AMARANTH, (Gomphrena,) Carnea, Rubra, and Aurea Superba; POLYCOLYMNA STUARTI, fine white flower; RHODANTE MANGLESII, very fine; XERANTHEMUM, Coerulea and Compacta.

ORNAMENTAL GRASSES.

Antoxanthum Gracile; Briza, Minima and Maxima; Lamarkia aurea; Chlorys Radiata; Eragrotis Elegans; Elymus Hystrix; Lagurus Ovatus; Pennisetum Longistilum; Stipa Pennata.

VEGETABLES.

Early French Short-Horn Carrot; Best Winter Savoy Cabbage; Early Winningstadt Cabbage; German Cucumber, Very Long Green; Early Oval Rose Radish; Early Paris Cauliflower; Lenormand Cauliflower, very large, late; French Dwarf Solid Self-Blanching Cauliflower; Lester's Perfected Tomato; Large Red Solid Tomato. Hubbard Squash; Teltow Sweet Turnip.

For the convenience of those who order seeds I will send any of the above, by mail, postage paid, at 10 cents per package, when the order shall amount to 50 cents. When the order amounts to $1, one package extra may be ordered. For $2, three packages extra, and for $5, ten extra packages, all of which will be sent free of postage.

NOVELTIES.

I have seeds of a few NOVELTIES well worthy of attention.

NEW DOUBLE ZINNIA, which is represented in Europe as almost as beautiful as a Dahlia. Ten Seeds for 25 cents.

DIANTHUS HEDDEWIGII—Seeds, per package, 25 cents.

DIANTHUS LACINIATUS—25 cents.

MIMULUS ROSEA PALLIDA—25 cents.

PODOLEPUS AFFINIS, from Melbourne, finest of the species, 10 seeds for 25 cents.

EUCHARIDIUM GRANDIFLORA ALBUM—per package, 25 cents.

CALLIOPSIS CARDAMINEFOLIA HYBRIDA—25 cents.

DIANTHUS CHINENSIS NANUS, VAR. ATROSANGUINEUS FLOWERED—brilliant and very hardy, 25 cents.

PHLOX DRUMMONDII RADOWITZI—dark rose, striped with white, 20 cents. March—1t.

AMERICAN GUANO—From Jarvis & Baker's Islands, in the South Pacific Ocean, imported by the American Guano Company. C. S. MARSHALL, President; H. MATHER, Secretary.
J. K CHAPPELL, Agent,
June—tf 64 Exchange Street, Rochester, N.Y.

TRIOMPHE DE GAND STRAWBERRY PLANTS—The best and most profitable; 50 cents per dozen; $1.50 per 100; $10.00 per 1,000. Dealers furnished at greatly reduced prices.
1t. J. KNOX, Pittsburgh, Pa.

HOWARD'S NEW MOWER.

I WISH thus early to call the attention of those intending to buy a MOWER or a MOWER AND REAPER for the coming Harvest, to my NEW MACHINE, and the reduction of prices.

I shall have for the coming harvest four different sizes of Machines, and sell them as follows:

My One-Horse Mower, capable of cutting from five to six acres per day..... $70 00
No. 2.—Two-Horse Mower, will cut from eight to ten acres per day..... $85 00
No. 1.—Two Horse Mower, will cut from twelve to fifteen acres per day..... $100 00
Combined Mower and Reaper, twelve to fifteen acres per day..... $130 00

They are so arranged that

The Entire Machine Runs on Wheels or Rollers,

and with a Patent Adjustable Lever and Roller, the driver has perfect control of the finger-bar in backing or raising it over obstructions, or in transporting the machine from field to field.

They throw out and in gear by the driver without leaving his seat, and there is no necessity for backing up to give the knives motion before entering the grass, nor to drive fast to prevent clogging. They have no side draft—no bearing down of the pole to cause sore necks on your horses—no clogging or breaking down, and any boy can manage them.

Each Machine is warranted to be made of good material—to cut any and all kinds of grass without clogging—to have no side draught, and to be worked with less labor for man and team than any machine now offered for sale, doing the same amount of work. Send for a circular. Address R. L. HOWARD
March—2t. Buffalo, N. Y.

Tree Seeds! Tree Seeds!

SCHROEDER & CO.,

NO. 79 STATE STREET, ROCHESTER, N. Y.

OFFER, among many other varieties of Tree Seeds, the following leading sorts, at the prices named:

Abies Excelsa, (Norway Spruce)	per lb,	$0.50
Pinus Austriacus, (Austrian Pine)	"	1.75
" Silvestris, (Scotch Pine)	"	1.50
" Strobus, (White)	"	2.50
" Cembra, (Cembrian)	"	1.00
" Pinea, (Italian Stone Pine)	"	2.00
" Pumilis, (Dwarf)	"	2.00
" Laricia, (Corsican)	"	6.00
" Pinaster, (Martima)	"	1.00
Picea Pectinata, (European Silver Fir)	"	1.00
Larix Europæus, (European Larch)	"	1.00
Juniperis Communis, (English)	"	0.50
" Virginiana, (Red Cedar)	"	1.00
Thuya Occidentalis, (American)	"	1.50
" Orientalis, (Chinese)	"	3.00
Fraxinus Excelsior, (European Black Ash)	"	1.00
Acer Platanoides, (Norway)	"	1.00
" Rubrum, (Scarlet)	"	3.00

PEAR SEEDS, $2.00 per lb.—in quantities of 25 lbs. and over at wholesale prices.

Apple Seeds, Cherry, Plum and Peach Pits.

Angers and Fontenay Quince, very strong.

Pear, Plum, Dwarf Apple, Dwarf Cherry, Manetti Rose Stocks, &c., &c. March—1t

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SEEDS! SEEDS! SEEDS!

Garden, Vegetable, Grass and Flower Seeds,

OF every desirable variety. *Priced Catalogues sent free by Post on application.*

No. 1.—Descriptive List of Flower Seeds, Horticultural Implements, etc

No. 2.—Vegetable, Grass, Herb, and Miscellaneous Seeds.

No. 3.—Wholesale Price List of Vegetable Seeds, for Dealers' use

ALFRED BRIDGEMAN,
March—3t. No. 876 BROADWAY, NEW YORK CITY.

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200 ACRES OF TREES AND GRAPE VINES. ☞ Prices to suit the times. Send for a catalogue.

STANDARD AND DWARF PEARS,
STANDARD AND DWARF CHERRIES,
STANDARD AND DWARF APPLE,
CURRANTS AND GOOSEBERRIES,
RASPBERRIES AND STRAWBERRIES,
GRAPE VINES, NEW SORTS,
EVERGREENS, ROSES AND SEEDLINGS,

1t, W. T. & E. SMITH, Geneva Nursery, Geneva, N. Y.

50,000 PEACH TREES—Innoculated last season with the choicest fruit, which we will sell at $25 per 1000 trees, delivered at Railroad free of cost. Address
Mh—2t* J. T. SERGEANT & CO., Sand Brook P. O., N. J.

FRANCONIA RASPBERRY PLANTS—$1 per dozen; $4 per 100; $35 per 1,000. J. KNOX, Pittsburgh, Pa.

SELECT LIST OF STRAWBERRIES.

Ten Varieties and One Thousand Plants for Ten Dollars.

FOR $10 we will furnish 100 plants each of the following choice kinds: *Triomphe de Gand, Trollope's Victoria, Vicomtesse Hericart de Thury, Filmore, British Queen, Burr's New Pine, Jenny Lind, Hooker, M'Avoy's Superior* and *Wilson's Albany.*

Five Varieties and Five Hundred Plants for Five Dollars.

For $5, we will furnish 100 plants each of the following kinds: *Triomphe de Gand, Trollope's Victoria, Burr's New Pine, Jenny Lind,* and *Wilson's Albany.*

STRAWBERRY PLANTS BY MAIL.

For $1, we will send to any Post Office address in the country, postpaid, and carefully put up in cotton and oiled silk, so as to carry safely, 25 good plants of the *Wilson's Albany.* We will send, for the same price the same number of plants (25), of any variety offered in our catalogue, at 25 cents per dozen.

For $1, we will send 20 plants of the *Triomphe de Gand,* or any other variety we offer at 50 cents per dozen. No order filled for plants by mail, for less than one dollar's worth, of any one kind.

RASPBERRIES.

Our stock of plants is very large and fine. We have over twenty varieties, including *Brinckle's Orange,* at $1 per dozen; $5 per 100; *Franconia,* at 75 cents per dozen; $4 per 100; *Fastolf, Eiser's Large Fruited Monthly, Knevett's Giant, Hudson River Antwerp, Red and Yellow Antwerp,* and others, at 75 cents per dozen; $3 per 100; *Improved American Black Cap,* 50 cents per dozen; $3 per 100.

Persons wanting large quantities of the above will be furnished at very low rates.

SELECT LIST OF RASPBERRIES.

For $10 we will furnish 100 *Brincle's Orange,* the finest flavored Raspberry, as well as one of the largest, most beautiful and productive.

100 *Franconia,* a very large red berry, of good flavor, attractive, and enormously productive.

100 *Improved American Black Cap;* much larger, more juicy, better flavored, with fewer seed, and every way superior to the common Black Cap. The plant is entirely hardy and very productive, and the fruit is much sought after in the market.

The above kinds include the three colors—orange, red and black—and furnish a pleasant variety in flavor. We regard them as the best for amateurs, and the most profitable for market culture.

BLACKBERRIES.

New Rochelle, ...	$1.00 per dozen;	$5.00 per 100	
Dorchester, ...	75 cts. " "	4.00 "	
Newman's Thornless, ...	75 " " "	3.00 "	

For $10 we will send 100 of each of the above kinds.

We have fruited these varieties for five years, and having ten acres under cultivation, we are prepared to furnish wholesale purchasers at the lowest rates.

LOGAN GRAPE VINES.

Having procured a supply of the above early and valuable Grape, of A. Thomson, of Delaware, Ohio, we will furnish good, well-rooted vines at 75 cents each—$7 per dozen; or by mail, securely put up, and postage paid, $1 each.

March—1t. J. KNOX, Lock Box 155, Pittsburgh, Pa.

MARBLEHEAD MAMMOTH CABBAGE.

THIS is the largest Cabbage in the world, averaging 30 lbs. per plant *by the acre!* Plants of this variety have been raised, weighing over 60 lbs., measuring nearly six feet around the solid head. Over sixty tons have been raised to the acre. Upwards of $300 have been cleared from one half acre of land planted to this Cabbage.

Circulars, in which the above facts are thoroughly substantiated, and many statements relative to the famous Mason and Stone Mason Cabbage, Marrow Squash, and Hubbard Squash, (for the introduction of which I received a piece of silver plate, as a testimonial from the Massachusetts Horticultural Society,) forwarded gratis.

Packages of the Mammoth, 25 cts. each; of the Mason or Stone Mason, 33 cents per ounce; $1.00 for four ounces. Hubbard Squash, 15 cts. for about fifty seeds; extra pure Marrow, 25 cts. per package. JAMES J. H. GREGORY,

Feb.—4t. Marblehead, Mass.

"Women of New York."

MRS. HANKINS' Curious new Book of Female Characters in the City, is very interesting and strictly moral. Fancy binding. 350 pages. 50 Engravings. 36 Portraits. Mailed free for $1. AGENTS Wanted—Ladies and Teachers. Description of Books and Particulars of Agency mailed gratis. Address

March.—6t. HANKINS & CO., New York.

IMPROVED AMERICAN BLACK CAP RASPBERRY—50 cents per dozen; $3 per 100; $25 per 1,000.

1t. J. KNOX, Pittsburgh, Pa.

FARMERS, ATTENTION!

THE LARGEST DEPOT IN THE COUNTRY FOR THE SALE OF FERTILIZERS IS AT THE

NORTH RIVER AGRICULTURAL WAREHOUSE,

60 COURTLANDT ST., NEW YORK, Near Jersey Ferry,

Purchase your Fertilizers direct, and you are sure to obtain the

Pure Unadulterated No. 1 Peruvian Guano.

Pure Ground Bone, by the barrel or ton.

Super-Phosphate of Lime, Plaster.

The Celebrated **Lodi Manufactur'g Co's Poudrette.**

And all other Fertilizers worthy of recommendation.

Send for an Almanac for 1861.

GRIFFING BROTHER & CO.

Peruvian Guano,
Government Brand and Weight;
Ichaboe Guano,
American Guano,
Fish Guano,
Improved Superphosphate of Lime,
Bone Dust, fine and loose,
Land Plaster,

For sale in quantities to suit purchasers.

A. LONGETT,

March.—3t No. 34 Cliff Street, New York.

BROWN'S BRONCHIAL TROCHES.

Cure Cough, Cold, Hoarseness, Influenza, any Irritation or Soreness of the Throat, Relieve the hacking Cough in Consumption, Bronchitis, Asthma, and Catarrh. Clear and give strength to the voice of

PUBLIC SPEAKERS and SINGERS.

Few are aware of the importance of checking a Cough or "Common Cold" in its first stage; that which in the beginning would yield to a mild remedy, if neglected soon attacks the Lungs. "*Brown's Bronchial Troches,*" containing demulcent ingredients, allay Pulmonary and Bronchial Irritation.

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THE TRIBUNE FOR 1861.

PROSPECTUS.

THE WEEKLY TRIBUNE is now in its XXth Volume. During the past year, THE TRIBUNE has been obliged to devote quite a large proportion of its space to Politics, but we shall henceforth be able to limit our space devoted to Political discussion, and devote most of our columns to subjects of less intense, but more abiding, interest. Among these, we mean to pay especial attention to

I. EDUCATION.—The whole subject of Education, both Popular and General, will be discussed in our columns throughout the year 1861, and we hope to enlist in that discussion some of the profoundest thinkers and the ablest instructors in our country. It is at once our hope and our resolve that the cause of Education shall receive an impetus from the exertions of THE TRIBUNE in its behalf during the year 1861.

II. AGRICULTURE.—We have been compelled to restrict our elucidations of this great interest throughout 1860, and shall endeavor to atone therefor in 1861. Whatever discovery, deduction, demonstration, is calculated to render the reward of labor devoted to cultivation more ample or more certain, shall receive prompt and full attention.

III. MANUFACTURES, &c.—We hail every invention or enterprise whereby American Capital and Labor are attracted to and advantageously employed in any department of Manufacturing or Mechanical Industry as a real contribution to the public weal, insuring ampler, steadier, more convenient, more remunerating markets to the Farmer, with fuller employment and better wages to the Laborer. The Progress of Mining, Iron-making, Steel-making, Cloth-weaving, &c., &c., in our country, and the world, shall be watched and reported by us with an earnest and active sympathy.

IV. FOREIGN AFFAIRS.—We employ the best correspondents in London, Paris, Turin, Berlin, and other European capitals, to transmit us early and accurate advices of the great changes there silently but certainly preparing. In spite of the pressure of Domestic Politics, our News from the Old World is now varied and ample; but we shall have to render it more perfect during the eventful year just before us.

V. HOME NEWS.—We employ regular paid correspondents in California, at the Isthmus of Darien, in the Rocky Mountain Gold Region, and wherever else they seem requisite. From the more accessible portions of our own country, we derive our information mainly from the multifarious correspondents of the Associated Press, from our exchanges, and the occasional letters of intelligent friends. We aim to print the cheapest general newspaper, with the fullest and most authentic summary of useful intelligence that is anywhere afforded. Hoping to "make each day a critic on the last," and print a better and better paper from year to year, as our means are steadily enlarged through the generous co-operation of our many well-wishers, we solicit and shall labor to deserve a continuance of public favor.

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